

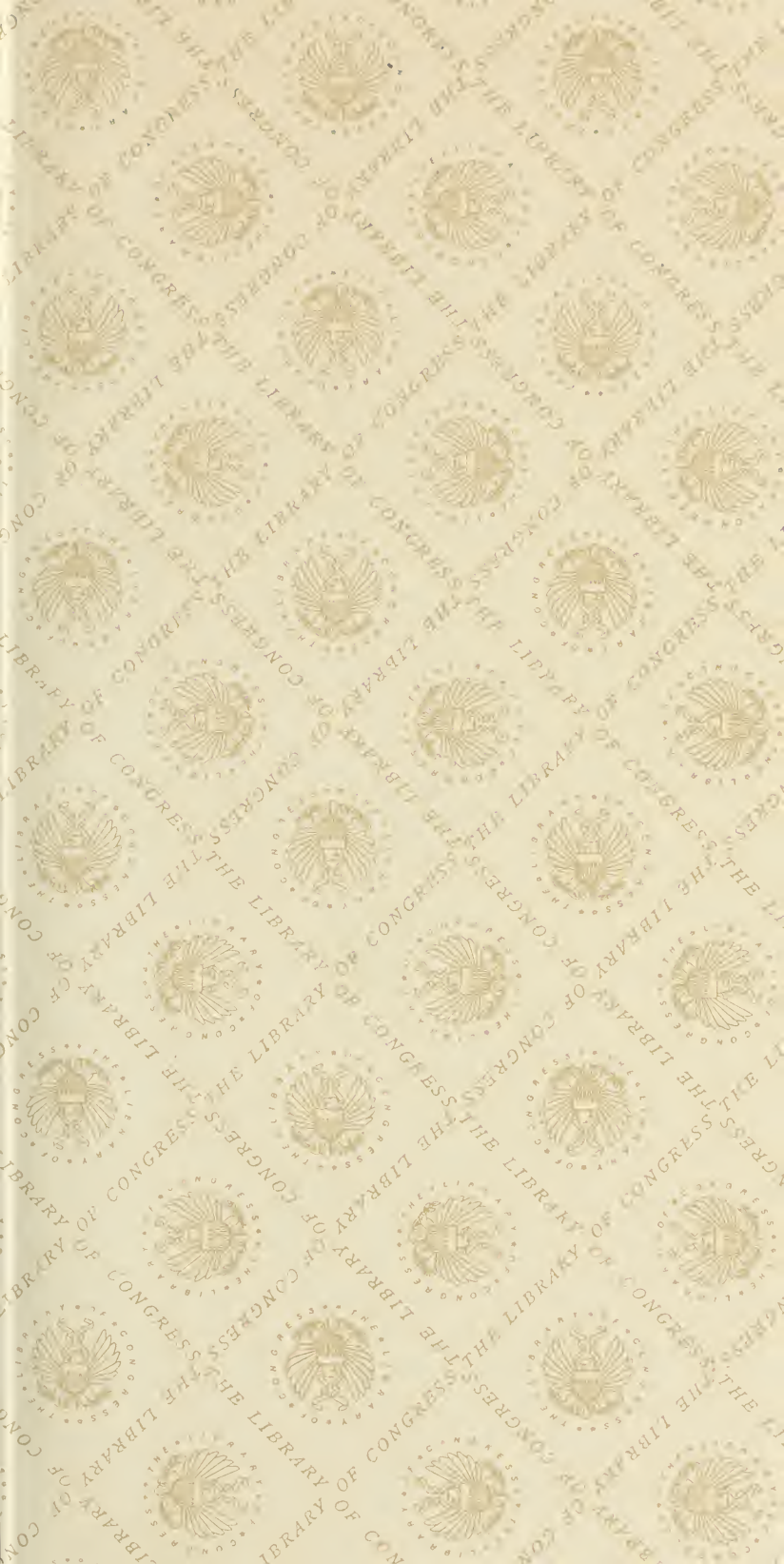
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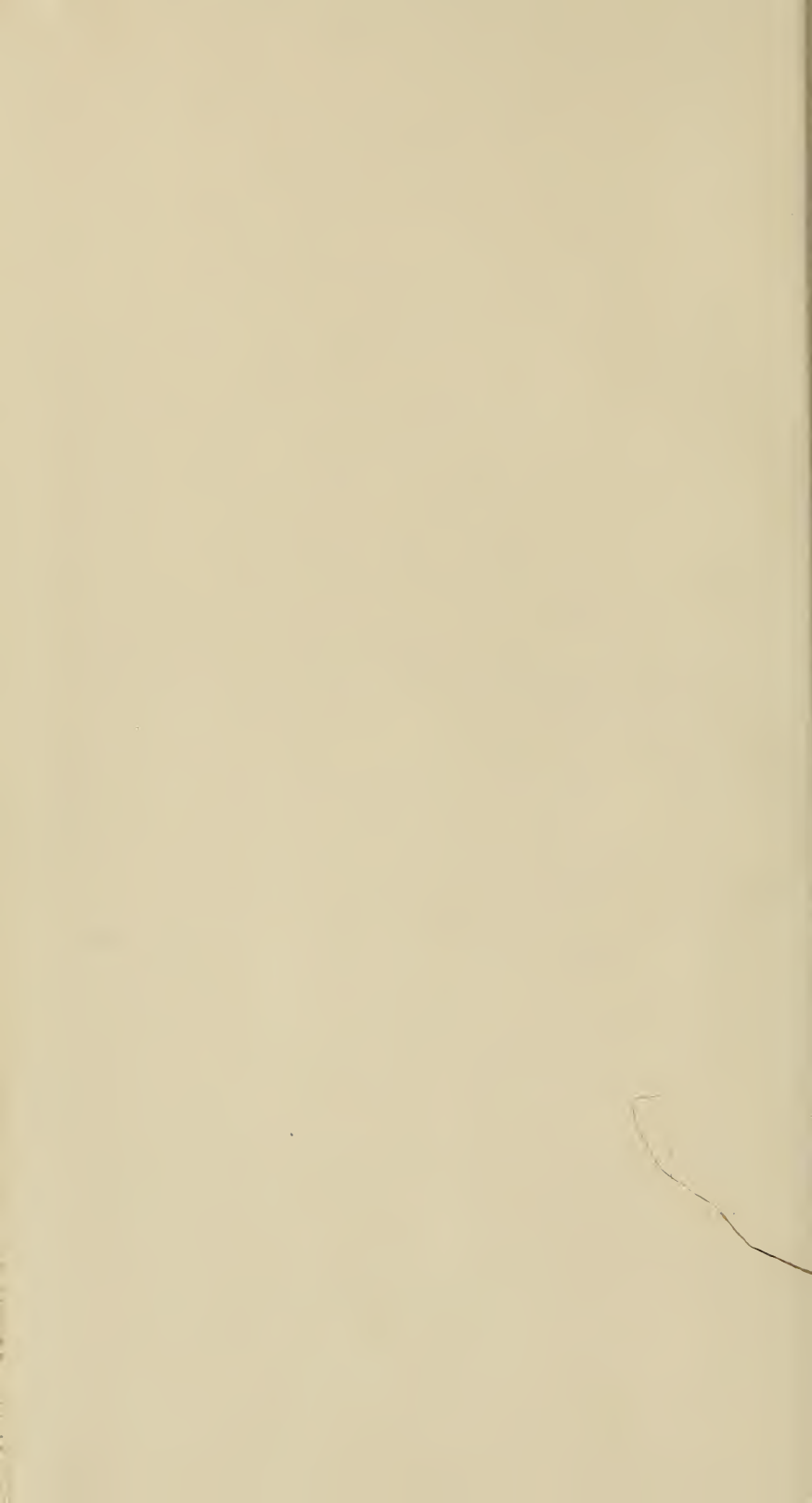












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**HISTORY**

**OF**

**AN EPIDEMIC FEVER.**

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REPORT FOR 1880

# ELI DEWEE KEYS

1880

STOTTED KEYS

AN EVIDENCE KEYS

BY A. DEWEE KEYS

1880

REPORT FOR 1880

1880



HISTORY AND DESCRIPTION

OF AN

# EPIDEMIC FEVER,

COMMONLY CALLED

## SPOTTED FEVER,

WHICH PREVAILED AT GARDINER, MAINE, IN THE SPRING OF 1814.

By E. HALE, Jr. M.D. M.M.S.S.



BOSTON :

PRINTED BY WELLS AND LILLY.

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TO

BENJAMIN VAUGHAN Esq. M.D. L.L.D.

DEAR SIR,

THE kindness and friendship with which you have honoured me, as well as the strong interest you feel in the promotion of science ; and especially that of the profession to which I belong, induce me to inscribe to you this little volume. You have seen much of the disease, which I have here attempted to describe, and will feel how inadequate any description is, to give a full representation of its various and evanescent features. You have seen too, what anxious watching, and diligent investigation, it incessantly required from the physician ; and how little time it left him, to mature his observations upon its character. You will, therefore, I doubt not, be disposed to receive with candour and indulgence this attempt to transmit to others, an account of the principal phenomena which it exhibited.

DEAR SIR,

Your sincere friend

and very obedient servant,

E. HALE, JR.

Boston, October 1, 1818.





## PREFACE.

---

SEVERAL treatises upon the Spotted Fever have already been published in this country. But as their object has been to give such an account of it, as would apply to its general character, as it appeared in different places; they could not of course take notice of many of the modifications, which it acquired from various local circumstances. It has been my object in this volume, to give a more *clinical* view of the disease; to exhibit it in its varieties, as it appeared to the physician at the bedside of his patient, rather than to seek its place in a regular system.

The materials from which the description and treatment of the disease are given, were taken at the time. At the close of every day, I recalled to mind the circumstances of each

case, for which I had prescribed, and recorded them in my note-book. By this means I had a daily journal of every case, and could afterwards compare them with each other ; and with the state of the weather, as shewn by the Meteorological Journal, which was also kept at the same time. A particular account of the situation and symptoms of each patient, and of the remedies prescribed, was in this manner recorded, until near the close of March ; when the number became so great as to make it impossible to do it so fully. The similarity of the more important symptoms in the greatest proportion of cases, also rendered a continuance of so particular a journal less necessary. I afterwards generally mentioned only the time and manner of the attack, and such other circumstances in the course of the disease, as were peculiar in their nature, or of less frequent occurrence.

This statement explains the reason that so few instances of coma are given among the cases, although I have considered it as making one of the stages of the disease. The prevalence of this symptom was much less general, in the early part of the Epidemic sea-

son, than it was at a later period. But my minutes of most of the cases, late in the season, are not sufficiently particular for publication. Had the cases of coma been less frequent in proportion to the others, I should nevertheless, have been disposed to regard it as constituting a distinct stage of the disease ; in as much as it appeared in most, or all of the cases in which the character of the disease was suffered to be fully developed ; and especially as the symptoms which attended it, were many of them, in a great measure peculiar to that stage.

The situation of a country physician, renders it necessary for him to unite much of the business of an apothecary, with that which properly belongs to his profession. He must not only prescribe the remedies, but must also prepare the medicines, and put them into doses. From this cause, some of the prescriptions were stated with less precision in my journal of cases, than if they had been written for another to follow ; and minute and unimportant changes in the medicines, were not always mentioned. In consequence of this, rather less variety in the treatment, appears in

the cases given in this volume, than was actually exhibited in practice ; but the difference relates only to such slight particulars, as were unimportant in their nature and effects.

I have given a considerable number of cases at full length, in order that the reader may be able to judge for himself, of the accuracy of the description of the disease, and the correctness of the observations which I have made upon it. These cases are taken from my note-book with only slight verbal alterations ; and, as at the time when the Epidemic prevailed, I had but partially formed my opinions respecting its nature, there was of course no chance for the correctness of the records, to be affected by any theoretical partialities. "There is at all times," says Dr. Hall, "something in individual cases, on which more reliance is placed, than on any generalization of facts ; for whilst the former are alone presented to our observation by nature, the latter is apt to partake of the bias of opinion, and of the imperfection of every production of the human mind."\*

\* Hall on Diagnosis. Preface, page xxiii.



I make no pretensions to originality, in the course of treatment which was adopted for the cure of the disease. It was principally derived from the general principles which are to guide us, in the management of all diseases, according to their character and symptoms. I had then had opportunity to read but little, of what had been previously published respecting the Epidemic. I had, however, obtained some benefit from these treatises; and I owe much to the suggestions of a highly respected friend, not in the profession.



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## INTRODUCTION.

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AN Epidemic in many respects similar to that, whose history is detailed in the following pages, prevailed extensively throughout New England, during the years 1812, 1813 and 1814. Wherever it appeared, its ravages were severely felt. The variety and deceptive nature of its symptoms often eluded the skill of the Physician, while the quickness of its operations, frequently left him little to contemplate but its fatal termination. The dread which it has inspired, under the name of the *Spotted Fever*, will scarcely be forgotten so long as memory or tradition shall last.

How far this was the same disease, as that, which prevailed at Gardiner in the Spring of 1814, I shall not at present stop to inquire. It is well known that peculiarities of climate, local situation and local habits have an important influence in modifying diseases; and it is by no

means unreasonable to suppose, that local diseases also materially affect, and vary the character of those, which are more general. The principle, first noticed by Sydenham, is now pretty generally received, as an established law of nature ; that Epidemics in their progress overpower all other diseases, and assimilate them to themselves. Yet it does not follow, that they are not in their turn influenced by the diseases, whose principal features they destroy. On the contrary, it is at least probable, that while their characteristic symptoms remain, they are so modified, as in many cases to assume a very different appearance. It would be a very curious inquiry, to what extent an Epidemic derives its character from the inherent nature of the disease, and how far that character results from the local complaints, with which it comes in contact in its progress. A satisfactory answer to this inquiry, were it possible to obtain one, would doubtless do much to quiet the disputes among Physicians, respecting the nature and treatment of these diseases. But the data, upon which such an answer must be founded, are not to be obtained in regard to any Epidemic, that has ever prevailed. It would require a particular historical description of the disease in a great variety of places, together with an accurate medical topography of each place : and these are circumstances, to which the attention of the profession has been but little directed.



Before I proceed, therefore, to the history, which is the main object of this treatise, it will be proper to notice some of the circumstances, which may be supposed to have influenced and modified the Epidemic, it describes. In this point of view, the face of the country, climate, local situation, local habits and prevailing diseases, are all entitled to some consideration. I shall not pretend to enter into a full discussion of these subjects; but shall only offer such observations, connected with my principle design, as a residence of less than five years enabled me to make. This is the more necessary in the present instance; as the climate of the District of Maine is little understood, and frequently misrepresented by those, who live out of the District.

The face of the country throughout the District of Maine is for the most part hilly, though rarely mountainous. Hills and valleys are irregularly interspersed in every part of the country. On the banks of the Rivers, they in many places assume a more regular appearance, rising and falling, like the waves of the sea. The hills in these instances frequently terminate on the river by an abrupt precipice. The vallies between them extend only a short distance, but soon rise to the elevation of the surrounding country, which is much higher than the level of the river.

The sea coast is pretty generally rocky, and apparently, barren. The interior is much less rocky, and is for the most part abundantly fruitful. The soil is various, being in some few places sandy, more frequently clayey, and still more extensively loamy. Its fertility is sufficient to yield a liberal return to the labours of the husbandman, although from the recent date of the settlements, the state of cultivation is very imperfect. Except on the sea-coast, and a few towns in the south-west part of the District, the towns have all been recently settled, very few of them being more than forty years old, and most of them still more modern. Of course, extensive forests abound in every part of the District. Perhaps no country in the world is better supplied with water, than this. Every portion of it is intersected by rivers, and smaller streams, and ponds, which furnish extensive advantages for inland navigation, as well as for the purposes of health and convenience.

The climate varies in temperature, from the severe cold of winter to the extreme warmth of summer—a range by the thermometer, of from several degrees below the zero of Fahrenheit, to 80 or 90 above it. Although exceedingly cold in winter, and warm in summer, it is much less subject to frequent and violent changes of temperature, than the more southern parts of the



country. It is rather remarkable for its uniformity. The winters are cold and long; but the steadiness of the cold lessens the perception of its severity. The transition from winter to summer is rather sudden, with the intervention of only a short period of the disagreeable weather of early spring. During the spring and summer, vegetation is rapid and vigorous. Rains, which are rare in winter, are generally sufficiently abundant in summer. A severe drought is an unusual occurrence. The heat of summer is almost as remarkable as the cold of winter; but on the Kennebeck river, (and I believe on the other rivers,) it is always tempered in the afternoon by a river breeze, which dispels the languor produced by the heat, and gives a delightful freshness to the atmosphere. This is usually followed by a calm, serene evening. It is remarkable, that vegetation does not seem to be at all impeded by the coolness of the air, produced by the river breezes.

The atmosphere, especially during the winter season, is clear and still. Violent winds are exceedingly uncommon, and in the cold weather, never occur. Nothing can exceed the serenity, transparency, and brilliancy, of a cold winter's evening on the Kennebeck. Not a vestige of a cloud is any where to be seen—not a vapour to obstruct the sight, which seems to penetrate into

the very immensity of space. Even the smoke, which rises from the villages does not intermix with the surrounding air, but, as if fearful of contaminating its purity, it stands congealed by the cold, in a column surmounting the chimneys from which it issues. There is scarcely a motion in the air to disturb the universal stillness. The whole scene leaves an impression of purity and grandeur, unequalled by any thing else, that I have ever witnessed. The atmosphere retains much of its purity and serenity through the summer months, though with less constancy and brilliancy. There was a remarkable exception to its usual transparency, in the summer of 1816, during a drought, which was said to be the most severe, ever known in the District of Maine. For several days the whole atmosphere was so obscured by smoke and fog, that the sun was hardly visible, or, if at any time it appeared in sight for a few minutes, its deep red appearance only served to render the darkness more gloomy. This darkness was generally attributed to the smoke from the forests, which had taken fire, by various accidents, in consequence of the drought; but with how much correctness, I do not pretend to determine.

The preceding observations apply to a great part of the District of Maine, as well as to the town of Gardiner. This town is situated on the

west side of Kennebeck river, about forty miles from its mouth, in north latitude  $44^{\circ} 14'$  and west longitude  $69^{\circ} 44'$ , and contains between 1800 and 2000 inhabitants. Its principal village is at the mouth of the Cobbossee-Contee, a small river, which empties into the Kennebeck. This river rises from a chain of ponds of considerable extent; and in the last mile of its course, furnishes by its falls an abundant supply of water power, capable of being applied to the purposes of the arts and manufactures. It is already made use of in a variety of manufacturing establishments, although to a very limited extent, in comparison with what the advantages admit of.

The Kennebeck is navigable for small sea vessels to Augusta, seven miles above Gardiner; and is subject to tides a little farther. The mean difference, at Gardiner, between high and low water, is about seven feet. The depth of water, below this place, is sufficient to permit the access and departure of loaded vessels of nearly two hundred tons burthen, though the navigation is somewhat obstructed by rocks and shoals in some places. The river is closed by ice during the winter. The mean time of closing, for the last twenty years, has been the 28th of November; and the mean time of opening in the spring, for the same period, the 6th of April. The mean time of closing during the last ten years was

rather later, than it was the first ten years of that period. In the time of opening there has been no material alteration of this kind. It is a rare occurrence for the ice to break up, and the river to close a second time in the course of the same winter.

Except the inhabitants of the village at the mouth of the Cobbossee-Contee, the people of Gardiner are generally farmers. Each one owns a small farm, and cultivates it with his own hands. The richness of the soil and the vicinity of a market furnish an abundant encouragement for their labour. There are, however, some peculiarities in their character, as compared with the farmers of the older towns in the country. Most of them, having removed here from different parts of the country, since the incorporation of the town in 1803, they have not had time to acquire that similarity of habits and customs, which is usually found in this class of people. The inconveniences, to which they were exposed, when they first encountered the labours of making new settlements, have led them to disregard many of the common comforts of life. Others, having been long accustomed to obtain their support from the produce of the forest, are but slowly reclaimed from the irregular and improvident habits, to which their mode of life has formerly subjected them. There is a considerable number, who



well sustain the regular and orderly character of New England farmers. But there are many others, who, although their character and condition are fast improving, still retain much of the hardiness and improvidence of the first inhabitants of a wild country.

The inhabitants of the village are traders, mechanics, and manufacturers, with characters and habits as various as their employments. Many of the mechanical arts, requiring a considerable degree of bodily fatigue and exposure, are of a nature to inspire those who are engaged in them, with a sort of contempt for the luxuries, and even for many of the comforts of life. Their hardiness and habitual vigour render them insensible to inconveniences, which in other situations would be considered essential to health and enjoyment. This is more especially the case with those who are employed in the saw-mills, in the manufacture of boards. The nature of their business exposes them constantly to great fatigue, by night as well as by day, and often to labour in the water for several hours in succession. Yet they are in general a healthy, vigorous class of men, and appear to catch their full share of the enjoyments of life as they pass through it. There is also a considerable number of persons, who have been familiarly conversant in general society, and

whose habits and customs of course need no particular notice.

From the preceding observations, it will naturally be inferred, that the diseases to which the inhabitants of the District of Maine are most subject, are those of inflammation, or at least such as proceed from a phlogistic diathesis. This may perhaps be true in general, although, during the time I resided in Gardiner, it was so only to a very limited extent, in that place and its vicinity. Rheumatisms, especially chronic rheumatisms, were very common. But excepting these, diseases of inflammation were exceedingly rare ; and in those which occurred, there was such a tendency to prostration of strength, that much caution was necessary, in the use of depleting remedies. Almost all of the cases of fever, which I saw, partook more or less of the character of that described in this treatise.

It is by no means true, however, that they have always been of this kind. In 1804 and 1805, an Epidemic prevailed in Gardiner and the vicinity, of a very different character. I have not had a very particular description of it : but from the course of practice, which was most efficacious in subduing it, it is evident that its characteristic was a strong tendency to inflammation. The Physicians who treated it the most successfully, used frequent bleedings, and gave large portions



of Jalap and the submuriate of mercury daily, until the symptoms remitted, which often required twenty-one days ; and at the same time, allowed only the lightest species of nourishment, and that in small quantities. So successful was this mode of treatment at that time, that it became habitual, with a considerable number of practitioners, till they seemed almost to forget, that there were other remedies in the *materia medica* ; and the powder of Jalap and submuriate of mercury has become a common family medicine.

From the best information I can obtain, the inflammatory diathesis appears to have prevailed, until within two or three years of the commencement of the epidemic of 1814. Whether the change from inflammatory to typhoid diseases was sudden or gradual in its progress, I have not the means of ascertaining. From the time that I commenced practice there, in the spring of 1813, the fevers were invariably those of debility, and continued to be more or less so, till the autumn of 1817, when they became more inclined to inflammation.

The peculiarities in the constitution of diseases, so well defined, and so accurately described by Sydenham, although generally acknowledged by medical writers, since he brought the subject in-

to notice, do not appear to have excited the attention which they deserve. It is very observable, that diseases, whose general characters are so similar as to be known by the same names, in different seasons require very different modes of treatment. A fever, which at one period shall require powerful and repeated evacuations, at another time, will bear them with great difficulty. A striking example of this kind is given by Dr. Rush, in his accounts of the yellow fever at Philadelphia, in different years, from 1793 to 1803. Even in those diseases which have a more fixed character, the same thing takes place, to a considerable extent. The various local inflammations, although they always demand bleeding, and other antiphlogistic remedies, in proportion to their severity, require much more caution in their application, at some periods than at others. There are some seasons, when little else seems requisite to the restoration of health, than to reduce the system from its inflammatory to its natural state. The patient passes almost directly from a state of high inflammation to that of health; or with the intervention of only a very short period of debility. There are other seasons, when in the same disease, and in persons of the same habits, if evacuations are prescribed incautiously, the patient sinks suddenly into a state of debility, more alarming, and more difficult to cure, than the inflammation which preceded it.

Few persons will perhaps be disposed to agree with Sydenham in attributing this change in the character of diseases, to changes in the state of the air. If corresponding phenomena had been known to take place in the atmosphere, they would do but little in explaining the effects attributed to them. Much less, since their existence is altogether hypothetical, should we resort to them for an explanation, which can add nothing to our knowledge of the facts. That such changes do take place in the constitution of diseases, is sufficiently established by an attentive observation of their history and symptoms, at different periods. The causes of the change seem beyond the ken of human knowledge; and it is useless to seek them in idle speculation, where observation and experiment cannot lead us. In a practical view, these changes are of the greatest importance. Every disease being more or less influenced by the prevailing constitution of diseases, it is necessary to take this into consideration, before we can make up our prescriptions, intelligibly and satisfactorily. We must not only look at the individual case before us, but must also bear in mind those which have preceded, as well as those which are cotemporary with it. Every case of disease may be considered as having some degree of relation to those which surround it, however dissimilar in their general appearance and character. Hence it is, that a physician who contents himself with ascertaining only the ge-

neral character of the disease to which he is called, and prescribes for it upon authority, will often be disappointed of the result he anticipates, while he who diligently investigates all the phenomena connected with it, and regulates his practice accordingly, will be more successful in its management.

It is exceedingly to be regretted that this subject has so little excited the attention of physicians and medical writers. Since the history which Sydenham has left us of the constitutions of the diseases of his time, although the accuracy of his descriptions, and the importance of his observations, seem to be fully allowed, yet very few have imitated his example, and delineated the pathological changes, and peculiarities of the periods in which they have lived. We have treatises on particular diseases, and systems of practice, in abundance ; but we have no continued history of diseases and their phenomena, which will connect those of one period with those of another, and exhibit the relation between those of different kinds, which occur at the same time. A series of such histories, while it would furnish us with the means of tracing the origin and progress of some diseases, and the decline and disappearance of others, would enable us, with more satisfaction than we can now do it, to compare the phenomena and treatment of such as come under



our own observation, with those which have been subject to the management of our predecessors.

I shall close this introduction with a concise historical sketch of the more important diseases, which occurred in my practice, during my residence in Gardiner.

I commenced practice there early in May 1813. Towards the close of that month we had several cases of severe catarrh, or rather pneumonia, complicated with bowel complaints. It was confined to children of from four to seven years of age. It began with a severe cough, with pain in the chest and dyspnœa, pain in the head and other symptoms of fever. In a day or two, there was nausea and vomiting, pain in the bowels, and not unfrequently diarrhœa. The number of cases was not great; and the termination was favorable in all of them. The disease was treated by blistering, emetics and cathartics, expectorants and alteratives, according to the variation of the symptoms.

The summer was remarkably healthy. One severe case of pneumonia in an adult, occurred in July; excepting which, my practice was almost confined to occasional calls to slight affections, teething children and casualties. The autumn was much the same. A singular tumour

in the left hypogastrium of a boy five or six years old, was the only case worth noticing. It was for some time, of a doubtful character ; but at length suppurated, was opened, and healed without difficulty.

In December, a case of sudden death occurred in consequence of violent anger ; but I was not permitted to examine the body, to ascertain the internal injury. Early in January 1814, I had one case of acute rheumatism, and one of severe pneumonia, which, however, terminated favorably. About the middle of this month, I was called into a family in Pittston, several miles distant, in which were several cases of genuine typhus fever, as described by authors. Neither the disease nor the treatment had any thing very peculiar in them. The patients all recovered.

At the same time, I had a case of a singular disposition to the formation of abscesses in a very young infant. The mother had been affected with psora, received from a domestic, about the sixth month of her pregnancy ; but had cured herself, as soon as it was discovered. Whether this had any thing to do with the subsequent disease of the child, I do not pretend to determine. The infant seemed perfectly well, until it was about three weeks old, when an eruption commenced, having very little of the appearance



of psora however, which soon increased into small abscesses. These abscesses shewed no disposition to ulcerate through the skin. Nor could they be made to do it, by any application for that purpose : but constantly extended themselves under the integuments, until the matter was evacuated by an opening with the lancet. Even after an opening was made, unless the discharge was very free, and aided by compresses, the abscess would rather incline to extend farther, than to heal. The matter discharged was generally bland pus, and very copious in quantity. More than thirty abscesses formed and were opened in succession, before the child recovered. The general health in the mean time was less affected than might have been expected. The strength was supported by an infusion of cinchona, after the discharge had become profuse, at the same time that the bowels were carefully regulated, and alteratives occasionally given. In three or four weeks the child recovered. It became very fat soon after, but seemed to be in perfect health.

In February the Epidemic began, which is the subject of the following pages. After it ceased as an Epidemic, a few cases of fever occurred, in the course of the summer and autumn, which, although they preserved many of its features, were too unfrequent, and too different from it in many

respects, to be considered as a continuance of it. The fever had more tendency to inflammation, at least to phlegmonous inflammation, than had been manifested during the Epidemic. There was not that tendency to debility, and that extreme exhaustion from the use of depleting remedies, which there had previously been. Evacuations were more freely required, and were borne much better. I have to regret the loss of two very valuable patients in the autumn of this year, by fever complicated with severe local affections.

In June, I had a case of genuine acute rheumatism, which continued for several weeks with considerable severity ; and another in October.

Through the winter, there were a few cases of fever, some of which were severe, and of a character nearly similar to those last described. As the cold weather advanced, however, it became necessary to use depleting remedies with more caution, and to administer tonics more freely, than during the summer and autumn ; and the few cases that occurred towards spring, assumed more the appearance and character of the Epidemic of the preceding year. A case in December shewed very strikingly the unfavorable effects of an unseasonable exhibition of cathartics. The patient had been sick three days when I was called, and had taken a powerful dose of jalap

and submuriate of mercury, two days before, which had then hardly ceased its operation. At my second visit, I found her determined to repeat the cathartic, although I could see nothing in her situation or symptoms, which indicated it. I had too little influence to prevent her from following her own inclination; but succeeded in inducing her to substitute a little rhubarb for a part of the jalap and submuriate, which she had already prepared before I arrived. By this means I reduced the quantity about one half. Notwithstanding the reduction however, the medicine produced a hypercatharsis, which very nearly destroyed her life, and which could not be subdued, by any means which I thought it prudent to adopt, until nearly a fortnight afterwards. When it yielded, it ceased rather abruptly, but without any unpleasant consequences.

In the spring of 1815, we had again several cases of pneumonia, complicated with bowel complaints. They were at this time principally confined to teething children. One or two cases proved fatal, and some others recovered with difficulty. The most efficacious mode of treatment was, after scarifying the gums, if they were swollen, to blister the chest, give an emetic of Ipecacuanha and submuriate of mercury, and to keep up the action of the bowels with small doses of the same submuriate, at the same time

giving expectorants, and the milder tonics, particularly infusion of quassia, as the symptoms might indicate.

In the months of May, June and a part of July, a fever prevailed in a small neighbourhood, which in some respects resembled the Epidemic of the preceding year, although it differed from it in some important particulars. Like that, it bore evacuations badly ; yet they did not produce such an overwhelming state of exhaustion and sinking, as they had done the year before. The disease, although severe, was less rapid in its progress, and less sudden in its changes of appearance and character. The first case was in May, of a young man, who had been for several years subject to scrofulous affections. He was relieved of the fever without much difficulty, principally by the use of alteratives ; but after he had become able to ride out, he was seized with a diarrhœa, which suddenly reduced him very low, in spite of all the remedies I could give him. The usual prescriptions for such an affection, had scarcely any effect, though administered very freely. His tongue had become black, his teeth and lips were covered with a black sordes, and other symptoms of approaching death had appeared, when suspecting the diarrhœa to proceed from scrofula, I gave him the solution of muriate of lime in pretty large quantities, with tincture of opium. The



effect very far exceeded my expectations. His bad symptoms soon disappeared, and in a few days he was rapidly convalescent.

Soon after this, two young men were taken sick in the same family, during my absence. They were treated with evacuants, principally cathartics, and died, each about the twentieth day. The other cases all terminated favourably, by the use of alteratives and tonics, care being taken at the same time, to preserve the first passages in good order. There were very few cases of fever in town this summer, except in this family and the immediate vicinity. The latter part of the summer and autumn were very healthy. The months of August and September particularly, scarcely furnished a case of disease of any kind. Indeed the remainder of this year was free from every thing worthy of notice in this sketch.

A case of acute rheumatism in the winter of 1816, was treated by bandaging, upon Dr. Balfour's plan. The bandages evidently gave very great relief from the pain; and thus diminished the sufferings of the patient, while other measures were in operation to remove the disease. Very little else occurred, except the unimportant cases and casualties which are perpetually recurring in country practice, until April, when

a pulmonary affection, with bowel complaints, again made its appearance among teething children. The number of cases was not great ; but they were generally very severe. They were treated, as the similar disease had been the year preceding, and in most cases with success, though in two instances it proved fatal. In one of them, however, nothing had been done to relieve the child, until the appearance of the convulsions which immediately precede death.

I had only two or three cases of fever, this spring, which were very similar in character to those of 1815 ; and in May, a severe case of ophthalmia. Through the summer my practice consisted principally of occasional calls. Only one case of any importance occurred. This was a fever complicated with a spasmodic affection of the leg, which at one time threatened to become a tetanus, but was subdued by the usual anti-spasmodics, combined with the treatment for fever.

There was nothing the following autumn, nor in the winter and spring of 1817, which requires a particular notice here. I had one case of ophthalmia in January, and some slight rheumatisms, and a considerable number of various chronic affections in the course of the spring ; but they had nothing very peculiar in them.



In the summer following, a disease of a more important character made its appearance, and at one time, threatened to become extensive in its ravages. Its course, however, was checked rather suddenly by the approach of cool weather ; and the number of cases was not large. It was a fever, but of a very different character from those heretofore mentioned, and requiring a very different course of treatment. The several cases exhibited a great variety of appearances ; but they agreed in general, in requiring evacuants much more extensively, and stimulants more sparingly than any fevers which I had seen. In a few weeks I bled more patients than I had, at any time before since I commenced practice ; and this arose, not from any change in my opinion respecting the propriety of bleeding in fevers generally, but from an alteration, as I believed, in the character of the fevers which came under my observation. At the same time, it was necessary to use evacuations with much caution, to prevent the strength from sinking too low. The disease seemed to be on a point between requiring a decidedly depleting, and stimulating course of remedies. In the earlier cases particularly, much cautious investigation, and anxious watching were requisite, to manage them satisfactorily. I had the pleasure, however, of seeing them all terminate favourably, which came under my care where I had the control of the treatment.

I found one bleeding, at the commencement of the disease, sufficient. This was generally followed by an emetic, which was sometimes repeated, and by a liberal exhibition of antimonial diaphoretics. Cathartics were also given freely, whenever the symptoms appeared to indicate them ; and tonics as soon as the febrile excitement was diminished. As the excitement declined, the patient in almost every case, sunk into a comatose state, from which he was always relieved by the application of cold water to the head, and the internal use of stimulants. Blisters were at first tried for this symptom, but with very little, or no effect.

There were two cases in which the symptoms were rather anomalous, and sufficiently remarkable to deserve a more particular notice. The first was a stout, athletic man, who had been several days sick with severe pain in the head and back. He had been bled, and had taken a powerful cathartic, by which the pain was nearly removed. Still he seemed in great distress, though he could not refer it to any particular part. He slept very little, but lay tossing upon the bed continually. His tongue was at first coated, but had become nearly natural. His pulse was of a natural frequency, and rather feeble. His skin was dry ; and his countenance expressive of the deepest agony. At length, by giving him very large doses of antimonials, with the aid of exter-

nal sudorifics, I succeeded in procuring a free perspiration, which completely relieved him of his distress. As soon as this had taken place, the usual symptoms of fever, quick pulse, coated tongue, &c. made their appearance, and were removed after a few days, by the remedies which were successful in other cases.

The other case referred to, was a man of a feeble constitution. I was called to him the first day. He had the usual symptoms of fever, but not very severely. I gave an emetic and antimonials. As his pulse was feeble, and there was no symptom which seemed particularly to require it, I declined bleeding him, although he wished it. The next day he sent to another physician, who was not aware that I had been called, until he arrived at the house, which was at a considerable distance ; and reluctantly consented to prescribe without my being present. The symptoms of fever had now, in a great measure, disappeared, and given place to others, resembling those of paralysis. He bled him, and directed frictions with a solution of the meloes vesicatorii. The third day, at the particular request of this physician, the sick man was again put under my care. His pulse was now slow and feeble—skin dry—tongue slightly coated. His countenance was fixed, with a very peculiar expression, which I know not how to describe. He had complained of no

pain, since the first day, when he had had a little in the head, which was relieved by the emetic. But the symptom, which was peculiarly noticeable, was an entire loss of the power of voluntary motion. There was no rigidity of the muscles, and no diminution of heat or of sensibility ; yet he could not impart the least motion to a limb, or even to his head. When raised upon his feet, he could stand, as he had been doing that morning, but as soon as he attempted to walk, he fell perfectly helpless upon the floor. In like manner, if his head fell upon one side, while he was sitting upon the side of his bed, he was unable to raise it, although he could keep himself erect, when he had once gained that posture. He could not move a finger or a toe in the least degree. He spoke with a little difficulty ; but breathed well, and swallowed with ease. He had a slight sensation of numbness in his limbs, which he compared to a slight degree of the feeling which is called a sleepiness of the limbs. His mind was perfectly clear, and he was totally free from every thing like torpor or coma.

I still considered this as a case of fever, and believed the febrile action to be in a manner concentrated upon the nervous system, as in the preceding case it had been upon the brain. I accordingly directed large doses of a powder of Ipecacuanha and camphor, with a small portion



of opium, to be given every four hours ; and a pretty large blister to be applied to each leg, and as soon as the action of the skin was excited, to be removed to another place, without full vesication. Stimulating frictions were also ordered to be diligently applied over the whole body.

Upon visiting him again the next morning, I was mortified to find, that because the first powder had produced a slight nausea, no more had been given ; and the other remedies had been very carelessly applied. My patient was now in a hopeless state. The loss of power had extended to the muscles of respiration and deglutition, and of voice. He breathed with great difficulty, and could scarcely speak intelligibly. The whole surface of the body was covered with a profuse perspiration ; and a watery fluid flowed in considerable quantities from his mouth, which came apparently from his lungs. He had not lost his sensibility nor his powers of mind, and the heat of the body was not materially diminished. Some attempts were made to rouse the system to action, by powerful stimuli ; but they were ineffectual, and he expired the same day. I could not obtain leave to have a dissection.

I had afterwards another case, in which an excruciating pain in the foot was attended with undefined general distress, thirst and dry skin. I



bled pretty largely, and prescribed antimonials. The next day the pain was completely gone, and my patient had only a slight fever remaining, which disappeared in a day or two.

Cases of this fever continued to occur occasionally, though not very frequently, through the whole of the autumn, until December, when I removed from Gardiner.

## CHAPTER I.

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### HISTORY OF THE ORIGIN AND PROGRESS OF THE EPIDEMIC.

AT the commencement of the year 1814, there was nothing at Gardiner, to indicate the approach of the Epidemic, that was to follow, unless it was its prevalence in some towns in the vicinity. The year preceding had been abundantly fruitful. The autumn and first part of the winter was drier than usual, but not so much so as to produce a drought of any importance. The winter was a pleasant one, without any unusual physical occurrence to distinguish it from others in that climate. The tables subjoined to this chapter, exhibits more particularly, the temperature and state of the atmosphere during this period.

Early in the autumn of 1813, we began to receive accounts of a destructive Epidemic in many towns not far distant. As the winter advanced, the accounts became more and more threatening, as the disease approached nearer to us.

It was frequently fatal ; and the character which it acquired by report, did not diminish its terrors. The first case in Gardiner, to which I was called, was on the eleventh of February. The patient had been several days ill, but not so sick as to call a physician till this time. The case proved to be a severe one, but eventually terminated in recovery. It was nearly a fortnight before any other cases of the fever occurred. Towards the last of February, however, several attacks followed each other in such quick succession, as to produce a considerable alarm. Some of these were in the family and immediate neighbourhood of the person first seized ; others were at a distance, and had had no communication whatever with the sick.

Throughout the month of March, the Epidemic extended itself rapidly in all directions. In some of the families, where it first made its appearance, almost every person was seized by it. In others, only one or two were at any time materially affected. In some cases, it seemed to spread progressively from house to house, as if communicated from one person to another ; at the same time that in others, it suddenly made its appearance in distant neighbourhoods, seizing sometimes two or three persons in a family, nearly at once. All classes of people, and all ages seemed alike exposed to its attack.

Towards the end of this month, the Epidemic was more prevalent, than at any other period. Within a small circuit, more than fifty were confined with it at the same time. Many others, who were not reckoned among the sick, were slightly affected by similar complaints ; so that the sick and the invalids included a very large proportion of the population. Although the number of deaths was not large, yet the distress produced by the prevalence of sickness, was great. In many instances, the sick were but poorly supplied with the accommodations and comforts, which such a situation requires. The distress arising from these circumstances, was much increased, by the difficulty and often the impossibility of obtaining suitable nurses. It was a disease which required constant and unremitted care. But in such a town as Gardiner, where health generally prevails, there are but few, who are familiar with the course of attention and management which a sick person requires, and of these few, a large proportion were themselves sick.

As I passed, with as much rapidity as possible, from one scene of wretchedness to another, my heart sickened at the sight of the sufferings which I was called to relieve, and at the prospect which they exhibited. The Epidemic, still extending itself in all directions, spread a gloom over the face of every object. Young



in the profession, and with but little experience, I was obliged to contend with a powerful disease, in a situation where I could very rarely obtain the advantage of counsel. During the course of fatiguing practice, which this state of things required, I used no precautions to guard myself from an attack of the fever. I was constantly and laboriously engaged until late at night, and took my meals at irregular hours, as I could get an opportunity; but without any injurious effects on my health.

Early in the month of April, the progress of the Epidemic began to abate, and it continued to diminish throughout that month; especially in the parts of the town in which it had previously raged. About the 20th I was called to a considerable number of cases in Pittston, on the East side of the Kennebeck River; as well as to several new cases in Gardiner.

Throughout the month of May also, a considerable number of cases occurred. But they grew less and less frequent until the close of the month. The Epidemic may be said to have terminated its course in Gardiner with this month. In each of the three following months of June, July and August, I did not see more than two or three cases of Fever of any kind.

During the whole period of the Epidemic, sores of different kinds were unusually prevalent, as well as for some time after its termination. The most frequent of these was a species of boil, somewhat resembling a carbuncle, which was very common with the convalescent, as well as with those who had not been affected with general fever. It was a very painful tumour which in the course of two or three days from its commencement, ulcerated, and cast off a gangrenous slough. They were not often so severe as to require any other medical treatment than an emollient poultice, except when they were merely symptoms of a more important disease. The whitlow was also unusually prevalent at this time. Headachs and other slight symptoms of fever were almost universal. Hardly a person could be found in the village of Gardiner, or its immediate vicinity, who had not, in the course of the three sickly months, been the subject of an affection more or less severe, which was similar in its character to the more important cases of fever. Most of these, perhaps, would hardly have been noticed at any other time. But they deserve to be mentioned as examples of the strong and universal tendency to a particular disease, which prevailed at that period.

It was observable that the Epidemic throughout its whole course, was remarkably affected by the state of the weather, and especially by any sudden change in its temperature. This was true, not only in respect to the effect on individual cases, but also as applicable to the Epidemic, as such. A few days of unusual cold seemed to render all the existing cases more severe, and at the same time, produced a greater number of new attacks; while on the contrary, a change from cold to milder weather produced a corresponding effect, in mitigating the symptoms and lessening the ravages of the disease. This was strikingly exemplified by the effect of the cold days from the twenty-first to the twenty-sixth of March, and of the warm days which followed. During these few cold days, the cases were much more frequent, and more severe than at any previous time; but as soon as the weather became mild, there was a remarkable mitigation of the symptoms, and diminution of the frequency of new attacks. Several of those to whom I was afterwards called, dated the commencement of their sickness from a period prior to the favorable change, in the temperature of the weather. This effect seems to be attributable to the sudden change, rather than to the coldness or warmth of the weather merely. For the fever generally was not more severe, nor more difficult to manage, in the early part of the season when the weather was cold, than it was at a later period,

when it was warmer. Nor on the contrary did it increase in severity with the progress of the season. There was indeed very little difference in the facility of managing it, during all the time that it raged as an Epidemic, although some of the symptoms underwent considerable alteration.

The following tables exhibit the rise and progress of the Epidemic ; and in some measure the state of the weather at the time. I have begun them at a period considerably anterior to the commencement of the Epidemic, and continued them several months after its termination, in order that the reader may have as extensive a view as possible, of every circumstance, in any degree connected with the subject. The table of diseases does not exhibit those of any particular district, but those which came within my circuit of practice ; which of course cannot be very accurately defined. Previously to the Epidemic, this circuit was very limited. In the course of the Epidemic it was very considerably extended ; so that the number of cases which the tables exhibit, towards the close of its ravages, bears a much smaller ratio to the amount of population among which it prevailed, than at an earlier period. After the termination of the Epidemic, the same paucity of diseases appears, as before its commencement ; although the sphere of my practice was as extensive



as at any time during its prevalence. The department of practice, which at Gardiner is the most important to the physician, does not appear in the tables, because it is not usually reckoned among diseases. In a country so generally healthy as the District of Maine, and at the same time so fruitful, this department furnishes in ordinary times the most important, as well as the most productive part of the physician's labours.

The thermometrical observations, though sufficiently accurate for a standard of comparison of one part of the season with another, are not to be considered as a conclusive evidence of the temperature of the climate. In making them, care was taken that the thermometer should be freely exposed to the air, in the shade; but no attention was paid to the circumstances of radiation, or whatever else it is, that affects a thermometer, when exposed to a clear sky, on a widely extended, open area. The phenomena which such an exposure exhibits, had not excited attention, when these observations were made, and of course could not be taken into consideration, in selecting the place for the instrument used in making them. But this circumstance does not diminish their utility, for the purposes for which they are now published, however it might invalidate their authority, as data for investigations upon climate.

The column in the tables for *new attacks of fever* is not quite complete, in consequence of my having sometimes omitted to notice in my minutes the time of attack. Notwithstanding this imperfection, the column may be of some use, to shew how far the progress of the disease was connected with changes of the weather.

# Meteorological and Pathological Table.

DECEMBER, 1813.

Days of Observation.		Thermometer			Faces of the Sky.	New Cases.
		8 A. M.	1 P. M.	9 P. M.		
Wednesday	1	36	45	40	Cloudy, Rain.	
Thursday	2	34	36	25	Cloudy.	
Friday	3	16	23	15	Fair.	
Saturday	4	12	31	21	Fair.	
Sunday	5	21	41	25	Clear.	
Monday	6	27	34	31	Cloudy.	
Tuesday	7	34	38	31	Rain, Fair.	
Wednesday	8	33	40	33	Cloudy, Snow.	
Thursday	9	34	36	30	Snow, Fair.	Amenorrhœa 1.
Friday	10	25	33	22	Fair.	
Saturday	11	20	32	20	Fair.	
Sunday	12	22	26	18	Fair.	
Monday	13	21	31	27	Fair.	
Tuesday	14	26	38	26	Fair.	Dentition 1.
Wednesday	15	22	33	24	Fair.	Dent. 1. Fever 1.
Thursday	16	14	34	28	Fair.	
Friday	17	—	39	30	Cloudy.	
Saturday	18	28	31	31	Snow, Fair.	
Sunday	19	34	34	23	Fair.	
Monday	20	18	24	17	Cloudy.	
Tuesday	21	6	12	0	Fair.	
Wednesday	22	9	27	24	Fair.	
Thursday	23	19	38	20	Fair, Cloudy.	
Friday	24	31	24	4	Fair.	
Saturday	25	-3	12	6	Fair.	
Sunday	26	0	18	5	Fair.	
Monday	27	-6	17	14	Fair, Cloudy.	
Tuesday	28	22	30	26	Cloudy.	Violent Anger 1.
Wednesday	29	28	30	29	Snow.	
Thursday	30	32	30	17	Cloudy, Fair.	
Friday	31	15	18	10	Fair, Cloudy.	
Means		21	30	22		

## Meteorological and Pathological Table.

JANUARY, 1814.

Days of Observation.	Thermometer			Faces of the Sky.	New Cases.
	8 A. M.	1 P. M.	9 P. M.		
Saturday 1	12	30	22	Cloudy, Fair.	Rheumatism 1.
Sunday 2	15	34	26	Fair.	
Monday 3	- 3	4	- 9	Fair and Calm.	
Tuesday 4	-20	10	- 1	Fair.	Pneumonia 1.
Wednesday 5	- 2	12	-10	Fair.	
Thursday 6	-16	15	12	Fair, Cloudy.	
Friday 7	16	36	28	Cloudy, Fair.	
Saturday 8	13	23	0	Fair.	
Sunday 9	- 8	30	8	Fair.	
Monday 10	0	23	16	Fair.	Abortion 1.
Tuesday 11	19	32	30	Fair, Cloudy.	
Wednesday 12	30	36	28	Cloudy.	
Thursday 13	20	30	14	Fair.	Typhus Fever 3.*
Friday 14	- 3	29	12	Fair.	
Saturday 15	2	30	24	Fair, Cloudy.	
Sunday 16	26	30	25	Snow.	Hysteria 1.
Monday 17	30	30	26	Snow, Fair.	
Tuesday 18	12	34	16	Cloudy, Fair	
Wednesday 19	26	31	25	Slight Snow.	Abscesses 1.
Thursday 20	22	27	18	Fair.	
Friday 21	0	27	12	Fair.	
Saturday 22	- 6	14	4	Fair.	Typhus Fever 1.*
Sunday 23	0	14	15	Snow, Cloudy.	
Monday 24	23	29	33	Snow, Rain.	
Tuesday 25	24	45	20	Fair.	
Wednesday 26	26	33	24	Fair, Cloudy.	
Thursday 27	10	32	24	Fair.	
Friday 28	12	39	29	Fair.	
Saturday 29	9	22	- 1	Cloudy, Fair.	
Sunday 30	9	34	16	Snow, Fair.	
Monday 31	- 9	10	-12	Fair.	
Means	9	27	14		

\* These cases of fever were all in one family, in Pittston, several miles from where the Epidemic afterwards commenced; and were of a character very different from it.



# Meteorological and Pathological Table.

FEBRUARY, 1814.

Days of Observation.	Thermometer			Faces of the Sky.	Attacks of Fev.	New calls to Fev.	Other Diseases.
	8 A. M.	1 P. M.	9 P. M.				
Tuesday 1	-19	12	16	Fair, Snow.			
Wednesday 2	28	41	35	Mist, Fair.			Typ. Fev. 2.*
Thursday 3	22	40	12	Cloudy, Fair.			Colic 1.
Friday 4	-17	8	-16	Fair.			
Saturday 5	-26	23	-7	Fair.			
Sunday 6	10	26	14	Cloudy, Fair.			
Monday 7	-3	30	25	Fair, Snow.	1		
Tuesday 8	32	35	14	Fair & Windy.			
Wednesday 9	6	8	12	Hazy, Snow.			
Thursday 10	12	18	18	Cloudy, Hail.			
Friday 11	26	36	33	Cloudy, Rain.	1		Catarrh 1.
Saturday 12	22	24	18	Fair & Windy.			
Sunday 13	20	36	27	Fair.			
Monday 14	12	36	23	Fair, Cloudy.			
Tuesday 15	23	41	28	Hazy, Cloudy.			
Wednesday 16	19	46	30	Fair, Snow.			Cholera 1.
Thursday 17	36	41	42	Rain, Cloudy.	1		
Friday 18	37	49	37	Fair.			
Saturday 19	32	53	32	Fair.			Catarrh 1.
Sunday 20	32	40	37	Cloudy.			
Monday 21	27	39	21	Fair.			{ Dent. 1,
Tuesday 22	17	38	26	Cloudy, Fair.			{ Wound 1.
Wednesday 23	24	43	36	Fair.	1		
Thursday 24	30	40	46	Cloudy, Rain.	1	1	
Friday 25	40	34	25	Fair.	3	1	
Saturday 26	18	32	18	Fair.	1	5	{ Dis. of the
Sunday 27	12	36	32	Fair, Snow.	3	3	{ Heart 1.
Monday 28	33	37	23	Snow, Fair.			Worms 1.
Means	18	34	23				

\* These two cases were in the same family, and of the same character, as those mentioned in the preceding page.

## Meteorological and Pathological Table.

MARCH, 1814.

Days of Observation.		Thermometer			Faces of the Sky.	Articles of Fev.	New calls to Fev.	Other Diseases.
		7 A. M.	1 P. M.	9 P. M.				
Tuesday	1	20	26	25	Snow.	2		
Wednesday	2	22	36	18	Fair.		2	
Thursday	3	16	31	19	Cloudy, Snow.	1		
Friday	4	10	16	6	Fair.		1	Colic 1.
Saturday	5	10	18	6	Fair.	1		Worms 1.
Sunday	6	9	29	13	Fair.			
Monday	7	21	35	17	Cloudy, Fair.		2	
Tuesday	8	12	37	34	Fair, Cloudy.	1		
Wednesday	9	24	46	36	Fair, Cloudy.		1	
Thursday	10	32	37	30	Cloudy, Snow.			
Friday	11	21	39	32	Fair, Cloudy.			
Saturday	12	23	40	28	Fair.	1		
Sunday	13	22	25	14	Fair.			Cephalgia 1.
Monday	14	10	34	18	Fair.	4	2	
Tuesday	15	23	40	38	Snow, Rain.	1	1	
Wednesday	16	38	37	24	Fair.	2		
Thursday	17	30	34	30	Fair.	1		
Friday	18	32	49	30	Fair.	1	2	
Saturday	19	33	45	25	Fair.			
Sunday	20	32	32	21	Cloudy, Snow.	1		
Monday	21	18	40	24	Fair, Cloudy.	5	3	
Tuesday	22	12	30	15	Snow, Fair.	2	3	
Wednesday	23	16	30	20	Cloudy, Fair.	2	3	
Thursday	24	12	32	0	Fair.	4	2	
Friday	25	16	31	26	Cloudy, Fair.	11	7	
Saturday	26	13	38	38	Fair.	9	10	
Sunday	27	37	58	41	Fair.	3	4	Dentition 1.
Monday	28	34	49	35	Fair.	2	3	
Tuesday	29	26	50	32	Fair.	2	2	
Wednesday	30	34	57	44	Fair.	4	2	
Thursday	31	38	57	46	Cloudy.	4	2	
Means		21	37	26				

# Meteorological and Pathological Table.

APRIL, 1814.

Days of Observation.	Thermometer			Faces of the Sky.	Attacks of Fev.	New calls to Fev.	Other Diseases.
	7 A. M.	1 P. M.	9 P. M.				
Friday 1	43	43	41	Cloudy, Rain.	1	3	Dentition 1.
Saturday 2	44	51	38	Fair.	2	1	
Sunday 3	36	32	36	Fair.	1	2	
Monday 4	35	40	39	Cloudy.	1	5	
Tuesday 5	49	49	42	Rain, Fair.	2	1	
Wednesday 6	36	30	38	Fair.	1	1	
Thursday 7	36	46	33	Cloudy.	2	1	
Friday 8	31	44	36	Fair, Cloudy.	1	1	
Saturday 9	37	51	44	Fair, Cloudy.	1	2	
Sunday 10	40	44	44	Cloudy, Rain.	2	1	
Monday 11	41	47	39	Fair.	1	1	Worms 1.
Tuesday 12	37	52	34	Fair.	1	1	
Wednesday 13	33	50	36	Fair.	1	1	
Thursday 14	38	46	41	Cloudy, Fair.	1	2	
Friday 15	36	42	38	Rain.	1	1	
Saturday 16	36	48	34	Cloudy, Fair.	3	2	
Sunday 17	38	57	46	Fair.	4	1	
Monday 18	30	—	38	Fair.	3	1	
Tuesday 19	43	46	40	Cloudy.	2	3	
Wednesday 20	31	43	37	Fair.	1	4	
Thursday 21	41	44	39	Cloudy.	2	2	
Friday 22	40	58	48	Cloudy.	2	1	
Saturday 23	46	49	34	Fair.	2	1	
Sunday 24	24	56	30	Fair.	1	1	
Monday 25	29	42	42	Fair, Cloudy.	1	1	
Tuesday 26	48	71	73	Cloudy, Fair.	1	1	
Wednesday 27	50	—	58	Fair.	2	2	
Thursday 28	46	50	40	Fair.	2	2	
Friday 29	30	50	44	Fair.	2	2	
Saturday 30	47	—	53	Rain.	2	2	
Means	39	50	41				

## Meteorological and Pathological Table.

MAY, 1814.

Days of Observation.		Thermometer			Faces of the Sky.	Attacks of Fev.	New calls to Fev.	Other Diseases.
		6 A. M.	1 P. M.	9 P. M.				
Sunday	1	56	58	44	Fair.	1	1	
Monday	2	40	54	41	Fair.	2	2	
Tuesday	3	38	37	36	Cloudy, Thud'r.		2	
Wednesday	4	34	48	44	Cloudy.	2	1	
Thursday	5	44	51	58	Cloudy.	1	2	
Friday	6	38	51	48	Cloudy.			
Saturday	7	46	42	40	Cloudy, Rain.			
Sunday	8	42	56	47	Cloudy, Fair.	1		
Monday	9	47	58	43	Fair.		1	
Tuesday	10	44	70	46	Fair.	1	1	
Wednesday	11	54	60	56	Cloudy, Rain.			
Thursday	12	55	62	54	Cloudy.			
Friday	13	56	64	58	Cloudy, Rain.			
Saturday	14	55	53	49	Rain.			
Sunday	15	48	50	50	Rain.			Dentition 1.
Monday	16	51	62	53	Rain.	1	2	
Tuesday	17	52	60	56	Cloudy.			
Wednesday	18	60	69	52	Cloudy, Fair.	1		Catarrh 1.
Thursday	19	55	76	55	Fair.	1		
Friday	20	52	75	56	Fair.		2	
Saturday	21	58	58	60	Cloudy.		1	
Sunday	22	57	70	54	Rain.		1	
Monday	23	55	64	56	Fair.			
Tuesday	24	50	68	55	Fair.			
Wednesday	25	50	80	62	Fair.			
Thursday	26	64	84	66	Fair.			
Friday	27	60	78	60	Fair.			
Saturday	28	58	60	56	Rain.		1	
Sunday	29	54	62	57	Cloudy, Rain.		1	
Monday	30	54	55	52	Rain.			
Tuesday	31	51	54	52	Rain.			
Means		51	61	52				



# Meteorological and Pathological Table.

JUNE, 1814.

Days of Observation.	Thermometer			Faces of the Sky.	New Cases.
	6 A. M.	1 P. M.	9 P. M.		
Wednesday	1	52 66 54		Fair.	
Thursday	2	53 63 54		Fair.	
Friday	3	53 64 56		Cloudy, Fair.	
Saturday	4	54 67 54		Cloudy, Fair.	
Sunday	5	56 65 50		Cloudy, Fair.	
Monday	6	47 64 46		Fair.	
Tuesday	7	44 65 50		Fair.	
Wednesday	8	47 70 51		Fair.	Dentition 1, Fever 1. Fever 1.
Thursday	9	53 70 55		Fair.	
Friday	10	57 72 55		Fair.	
Saturday	11	55 74 57		Fair.	
Sunday	12	58 82 62		Fair.	
Monday	13	60 70 —		Fair, Rain.	
Tuesday	14	— — —			
Wednesday	15	— 80 —			
Thursday	16	62 83 65			
Friday	17	60 62 —			
Saturday	18	62 75 —			
Sunday	19	— — —			
Monday	20	— — —			
Tuesday	21	— — —			
Wednesday	22	52 78 60			
Thursday	23	68 — —			Fever 1. Pneumonia 1.
Friday	24	— — —			
Saturday	25	— — —			
Sunday	26	51 68 62		Fair.	
Monday	27	62 — 66		Fair, Rain.	Rheumatism 1.
Tuesday	28	63 66 64		Cloudy, Rain.	
Wednesday	29	59 76 70		Fair.	
Thursday	30	60 82 62		Fair.	
Means		56 71 58			

## Meteorological and Pathological Table.

JULY, 1814.

Days of Observation.		Thermometer			Faces of the Sky.	New Cases.
		5 A. M.	1 P. M.	9 P. M.		
Friday.	1	58	84	66	Fair.	Fever 1.
Saturday	2	58	83	66	Fair.	
Sunday	3	60	78	60	Fair, Rain.	
Monday	4	62	80	70	Fair.	
Tuesday	5	66	70	60	Fair.	
Wednesday	6	60	68	57	Fair, Cloudy.	
Thursday	7	58	70	54	Fair.	
Friday	8	52	76	56	Fair.	
Saturday	9	54	82	54	Fair.	
Sunday	10	56	78	60	Fair.	
Monday	11	60	60	59	Rain.	
Tuesday	12	58	68	48	Fair.	
Wednesday	13	49	70	61	Fair.	
Thursday	14	59	76	70	Fair, Shower.	
Friday	15	62	84	71	Fair.	
Saturday	16	63	92	70	Fair.	
Sunday	17	68	82	65	Cloudy, Rain.	
Monday	18	65	75	68	Fair.	
Tuesday	19	52	—	60	Fair.	
Wednesday	20	52	81	58	Fair.	
Thursday	21	56	64	59	Cloudy.	
Friday	22	60	68	64	Cloudy, Fair.	
Saturday	23	58	82	64	Fair.	
Sunday	24	62	82	66	Fair.	Dentition 1.
Monday	25	64	76	64	Fair, Shower.	
Tuesday	26	56	—	62	Fair.	
Wednesday	27	59	80	65	Fair.	Bowel Complaints 1.
Thursday	28	61	76	70	Cloudy, Rain.	
Friday	29	67	67	65	Rain, Fair.	
Saturday	30	60	80	62	Fair.	
Sunday	31	60	88	70	Fair, Shower.	
Means		59	76	62		

# Meteorological and Pathological Table.

AUGUST, 1814.

Days of Observation.		Thermometer			Faces of the Sky.	New Cases.
		5 A. M.	1 P. M.	9 P. M.		
Monday	1	60	70	62	Fair, Rain.	
Tuesday	2	60	62	58	Cloudy, Rain.	
Wednesday	3	58	70	62	Fair.	
Thursday	4	60	62	61	Cloudy, Rain.	
Friday	5	55	80	59	Fair.	
Saturday	6	56	76	64	Fair.	
Sunday	7	62	76	70	Fair, Cloudy.	
Monday	8	66	67	65	Cloudy, Rain.	
Tuesday	9	62	66	65	Rain, Cloudy.	Pleuritis. 1.
Wednesday	10	60	77	71	Fair.	
Thursday	11	56	81	64	Fair.	
Friday	12	64	83	72	Fair, Shower.	
Saturday	13	62	82	68	Fair, Shower.	
Sunday	14	63	76	64	Fair.	
Monday	15	56	58	56	Cloudy, Rain	Bowel Complaints 1.
Tuesday	16	56	80	70	Cloudy, Fair.	
Wednesday	17	64	87	66	Fair, Cloudy.	
Thursday	18	56	78	66	Fair.	
Friday	19	58	88	66	Fair.	
Saturday	20	56	78	64	Fair.	
Sunday	21	56	66	54	Fair.	
Monday	22	49	—	51	Fair.	Bowel Complaints 1.
Tuesday	23	43	70	52	Fair.	Fever 1.
Wednesday	24	56	74	62	Fair, Rain.	
Thursday	25	59	72	54	Fair.	
Friday	26	40	69	50	Fair.	
Saturday	27	49	69	60	Fair.	
Sunday	28	50	56	55	Rain.	Dysentery 2.
Monday	29	54	73	55	Cloudy, Fair.	
Tuesday	30	56	84	60	Fair.	
Wednesday	31	60	80	58	Rain, Fair.	
Means		57	74	61		

These Tables, it is to be observed, contain only those cases of disease, which were sufficiently severe to induce the patient to call me to his house. The multitude of slight cases, which occurred, especially during the prevalence of the Epidemic, for which applications were made and medicine sent, without my visiting them, are not noticed. It has been my object to exhibit in them, as fair a view as possible, of the great difference in the prevalence of sickness, during the Epidemic, and at other times.





## CHAPTER II.

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### DESCRIPTION AND SYMPTOMS OF THE FEVER.

THERE is a considerable degree of difficulty in distinctly characterizing a disease, so multifarious in its appearances, as this under consideration. At different periods of its progress, and in different cases, it assumed a great variety of symptoms, which in many instances seemed opposite to, and inconsistent with each other ; and which were continually changing their nature. Yet there were certain general features which were sufficiently constant and universal, to give a character to the whole. It was a disease which could hardly be mistaken in practice, but which it is extremely difficult to characterize in description.

The most striking appearance which it ever assumed, was the great depression of the vital powers. The debility was extreme ; the patient faint and helpless, was unwilling, or unable to make the least exertion ; the pulse low and generally quick, almost sunk from the touch of the finger ; the skin dry and mealy, though sometimes with a burn-

ing heat, generally inclining to be cold, had a lifeless, puffy, non-elastic, half oedematous feeling; the countenance somewhat bloated, was void of expression, fixed and inanimate, as if the spark which once lighted it, had already expired. The tongue dry, coated and dark coloured, was often protruded with difficulty; the stomach faint and exhausted by frequent vomiting; the head affected with pain and dizziness, sometimes amounting to delirium; the extremities cold and insensible, and affected with irregular paroxysms of pain; in short, the whole system was almost overpowered by the weight of disease; which, however, shewed itself more by negative than by positive symptoms.

Such are some of the general features of this disease. But in order to form a correct estimate of its character, it is necessary to take a nearer view of it, and to examine the symptoms as connected with each other, in the different stages of its progress. For this purpose I shall consider it as divided into four periods, or stages; the *access*, the *vomiting* stage, the *comatose* stage, and the *convalescence*. These distinctions will, I think, be found sufficiently accurate for the purposes of description; although it is not by any means pretended, that they were clearly presented in every case that occurred. A disease, whose irregularity of appearance might almost be reckoned a characteristic, cannot be arbitrarily subjected to fixed rules. Yet the division, without

any attempt to adhere very rigidly to it, will aid in conveying a correct knowledge of the true character of the disease, and in estimating the importance of the different symptoms.

### THE ACCESS.

The disease was exceedingly various, in different cases, in its mode of attack, both in respect to the suddenness of its approach, and to the symptoms with which it commenced. In some persons, the transition from health to severe sickness, was abrupt and violent, only a few hours, or sometimes only a few minutes, intervening between them. In others, though much more rarely, it was slow and gradual, and occupied several days. Nor have I been able to discover that any peculiar age, or condition, or habit of body, had any considerable influence, in rendering patients more or less susceptible of a violent attack. The old as well as the young; the feeble as well as the vigorous, were seized in the most violent manner; while in other instances, the robust and invalids were alike gradually assailed.

Thus for example, a vigorous man of thirty-three, who had left his house after breakfast in the morning, and gone to his work, returned in a short time so ill, as to reach home with difficulty, and before noon was in a delirium. A gentle-



man of eighty was seized in the morning, while sitting in his chair, with such violence as to be unable to reach his bed without assistance. A healthy boy of four years, was attacked about four o'clock in the afternoon, and became delirious within an hour. A young woman of rather a feeble habit, but who had been at work most of the day, and had been out in the afternoon, without being conscious of any illness, was attacked while at supper, in a manner which seemed to threaten immediate death. A woman rather more than eighty years of age, was taken suddenly ill at night, without any previons indisposition.

A neighbour of the man first mentioned, of about the same age, possessing an equally good constitution and health, and engaged in the same business, grew gradually ill for a week, before he was necessitated to call in the aid of a physician. An aged woman between sixty and seventy, suffered the slow approach of the fever, four or five days, before she consulted me, although I was in the house every day, attending others in the family. Neither of these two last mentioned cases, however, proved to be severe. A young married woman, previously of good health, became gradually ill four days before she called a physician, and was then very sick, and recovered with great difficulty. Another married woman of about the same age, and of a remarkably vigorous

constitution, was growing ill a week before she took medicine, was very sick a few days, and recovered in a short time.

Some of these cases will be noticed more particularly hereafter. They are introduced here to shew with what different degrees of severity, persons in various situations of life, and various states of health, were attacked. Although every species of constitution seemed liable to every variety in the manner of attack ; yet it may be observed, that of those, to whom the fever made a gradual approach, there was a larger proportion, who had previously been feeble and debilitated, than vigorous and robust. It was perhaps, partly in consequence of this, that it was frequently remarked, that those who were slowly assailed in this manner, were often longer in recovering than others who had been more violently seized. Another reason was, that in consequence of the delay in applying to a physician in the former case, the disease had more opportunity to fix itself, before an attempt was made to eradicate it. It not unfrequently happened, that a person after having been seized with the fever, was partially relieved by some domestic remedy, and neglected to apply for medical aid, until a return of severe symptoms. These cases were more difficult to manage, than those to which I was called on the first attack.

The most common mode of attack was, by a violent pain in the head and dizziness, which were soon followed by a pain in the back ; pain in the limbs, sometimes fixed, but oftener darting in severe paroxysms from one part of the body to another ; nausea and vomiting ; great thirst ; chilliness, succeeded by heat, and a general feeling of distress not referred to any particular part. The skin was always dry and parched, with a mealy and commonly a burning feeling ; the tongue dry, and soon covered with a thick coat ; the countenance fixed and dejected ; the pulse quick and commonly feeble from the first ; the limbs often cold and numb.

Not unfrequently a person was suddenly seized with most or all of these symptoms together, while engaged in his ordinary occupations, or sitting at his meals, or in bed. In other cases he had been subject to a slight head-ach and dizziness, or dizziness without pain, for several days, when the more violent attack commenced. Sometimes the pain commenced in some one of the extremities, and extended up into the trunk and head, when the other symptoms immediately followed. In a few instances pain in the bowels and diarrhœa, were the first symptoms which made their appearance.

In the earlier part of the epidemic period, the disease always commenced with severe pain in some part of the body, which, if it did not begin there, soon extended to the head and back; and in a few cases the pain increased, till in a short time it produced a delirium. Later in the season, however, pain was a less constant symptom. The disease then frequently commenced with a feeling of extreme faintness, or severe distress in the region of the stomach, or by general distress without reference to any particular part of the body. Sometimes in females, violent symptoms of hysteria ushered in an attack of fever. Where the approach of the disease had been gradual, in a few instances the patient complained of very little positive suffering, but rather of a general languor and debility, and loss of appetite, with a slight degree of thirst and occasional dizziness.

The pain in the back and limbs, particularly the latter, occasionally renewed their attacks throughout the whole course of the disease; and were not unfrequently so severe as to assume something of the appearance of rheumatism. It was, however, easily removed by the application of remedies, although very liable to return.

Besides the varieties of pain, which I have mentioned, there was in several cases, during the first day or two, an acute pain in the chest, ac-



accompanied by a cough and expectoration of thick mucus often streaked with blood. Early in the season this symptom was pretty common; but afterwards it seldom appeared. The cough and expectoration were considerably common in cases where there was no pain in the thorax. They were not often very troublesome, as the cough was generally moist and the expectoration easy.

Nausea and vomiting were nearly universal at the commencement of the fever, in every stage of the progress of the Epidemic. Unless in cases where there had been previous symptoms of a derangement of the functions of the stomach, the matter thrown up by the vomiting, consisted merely of watery fluid, intermixed with the substances which had been taken into it, immediately preceding and after the attack. The bowels, except in a very few cases of diarrhoea, exhibited no considerable marks of disorder at the beginning, nor at any subsequent period of the disease. They were indeed rather inclined to costiveness; but this was apparently the effect of the opium administered. The alvine evacuations generally preserved their healthy appearance, to a remarkable degree.

The thirst was extremely urgent, and rather peculiar in its nature. It was not the desire for cool or acid drinks, commonly witnessed in fevers.

Except in a very few instances, these were disagreeable, and those which were warm and aromatic demanded in their stead. Infusions of peppermint, pennyroyal, or ground hemlock, were the most common drinks, and by far the most pleasant to much the greater part of patients. Their aromatic quality seemed to operate like a cordial, to remove the sensation of depression, which was constantly felt at the stomach.

I have mentioned chilliness and subsequent heat among the general symptoms of the commencement of this fever, although they were very far from being universal. In the first part of the season, they were common ; but at a later period, there was frequently rather a universal coldness and inaction, than a real chill ; and no heat followed, except as it was supplied by external means, and by rousing the system to action. Whenever this coldness appeared, it was always accompanied by numbness, and a feeling of deadly torpor, in the skin, which words cannot adequately describe. The countenance was ghastly, the face and hands livid, with livid spots occasionally upon other parts of the body ; and the whole system seemed rapidly sinking, as if into a state of putrefaction.

The pulse was almost always quick in this stage of the disease, but exceedingly various in

its appearance in other respects. During the first part of the time, a considerable number of cases occurred in which it was rather full and hard, for the first few hours, sometimes for a day, and in two or three instances for a longer time. In by far the greater number of cases, however, the pulse was extremely feeble from the very commencement of the sickness; and in all, after a short time had elapsed.

In order to illustrate more fully the various modes of attack, I shall here extract the first descriptions of several cases of different kinds, as I find them recorded in my note-book. This method will make some slight repetitions necessary hereafter; but I think the disadvantage will be more than counterbalanced by the facility it will afford, of presenting a more precise and satisfactory view of this stage of the fever, than can be furnished by description alone.

*February 26.*—J. D. a boy eleven years old, was suddenly seized yesterday morning, with a violent pain in the head and dizziness; nausea and vomiting. During the night he was in a perfect delirium. This morning he is rational. The vomiting has ceased; but the nausea continues, with a depressing feeling in the region of the stomach. He still complains of great pain in the head and dizziness, and pain in the back and

limbs, some numbness of the extremities ; thirst, but desires only warm drinks. His pulse is quick and tolerably strong, and his tongue much coated. His bowels are not disordered.

A. B. a young unmarried woman complains of pain in the head and dizziness ; constant vomiting ; numbness of the extremities ; tongue coated ; pulse not remarkably quick, though somewhat hastened. She has been liable to similar complaints at her menstrual periods, of which the present time is one, but they have never before been so severe, nor attended with fever.

S. L. a girl of about eighteen, began to be a little ill three days ago, after rinsing clothes, in cold water, in the open air. In consequence of this, her menses which had just commenced were suppressed. She was not, however, so sick as to ask for advice till to-day, though I have been in the house daily attending her sister. She complains of pain in the head and dizziness, nausea, &c. ; but is able to sit up considerably. Her bowels are in good order, except that they are rather inclined to costiveness.

Mrs. H. a married woman about forty years old, has lately been considerably exhausted by attending upon a sick child. She was violently attacked to-day with severe pain in the head and



dizziness ; pain in the back and limbs ; occasional vomiting ; tongue coated ; thirst for warm drink ; a severe acute pain in the thorax under the right breast, which occasions difficulty of breathing ; a full, hard, quick pulse. She has been several days subject to a cough, attended by a free expectoration, both of which continue.

M. W. is a vigorous young man about thirty. He has walked, or rather skated on the ice, two miles to-day to church, where he attended all day, and returned in the same manner. He began to feel rather ill, before he reached home ; and soon after, was seized with extreme pain in the head and dizziness ; with pain in the back and limbs ; and rather a slight pain in the upper part of the thorax, nearly under the right clavicle ; rigors, followed by heat and thirst ; tongue dry ; pulse quick, full and hard.

S. C. a boy four years old, about four o'clock this afternoon was suddenly seized while at play with violent pain in the head ; nausea and vomiting ; pain in the chest ; chills followed by heat, &c. In a short time delirium supervened, and continued a few hours. He was thirsty ; tongue dry ; pulse quick and hard.

*March 9.*—S. B. a girl five years old, was seized this afternoon with pain in one cheek ; which

soon, however, left the cheek, when she complained of her stomach, and of general distress. Vomiting soon gave her partial relief. She has head-ach and dizziness; dry skin and tongue; pulse quick and rather hard.

*March 13.*—M. B. an unmarried woman of about twenty-five, of generally good health. She has however, for a week or two past, been troubled with symptoms of indigestion, and with pain and soreness about the sternum, arising probably from the nature of her work, which has been picking large paper in a paper-mill. This morning she was seized with chilliness; great pain in the head and dizziness; nausea; and a sense of general distress which she was unable to describe; thirst; livid spots about her nails. I was called in the afternoon. Her tongue was dry and protruded with some difficulty; skin dry; pulse quick and feeble. It seemed full on a slight examination, but was very compressible under the finger; general distress somewhat abated.

*March 16.*—Mrs. L. a young married woman of good general health, was seized on the 12th, at Augusta, with the usual symptoms, pain in the head, dizziness, &c. She was brought home in a sleigh the 13th, but has had no physician till today. Her pulse is feeble and rather quick; tongue coated and dry; skin dry; no constant se-

vere pain ; much disposed to vomiting ; inclined to faintness ; has a dry, troublesome cough, without any expectoration. Her limbs are at times numb, slightly swelled and puffy. She is thirsty, with a strong desire for cider.

*March 17.*—Mrs. W. a married woman about thirty, was taken in the night of the 14th with chills ; pain in the head, &c. She has had no medical advice till this evening. She now complains of faintness and extreme dizziness, if she rises from a horizontal posture ; pain in the back and limbs ; occasional numbness of the limbs, which have a very puffy feeling ; nausea and distress at the stomach, with loss of appetite, but no vomiting ; tongue coated and dry. Her skin is dry, but has been moist in the night at times ; she gets very little rest ; pulse feeble, of natural quickness ; bowels costive and sometimes painful ; tongue and jaws feel stiff.

*March 21.*—H. M. a young unmarried woman, has this afternoon attended a funeral in usual health. About seven o'clock she sat down to supper with the family, though she felt not much appetite. She was suddenly seized, while at table, with extreme distress in the stomach and head, followed in a few minutes by delirium. When I arrived, which was in a very short time, she was cold, helpless, took no notice of surrounding ob-

jects ; did not answer when spoken to ; had frequent startings. Her respiration was laborious ; pulse very feeble and rather slow.

N. W. a healthy man about thirty-five years old, was suddenly seized about an hour before sunset this afternoon, with extreme pain in the head and dizziness, and distress at the stomach, but no nausea or vomiting ; trembling, and a feeling of extreme debility.

*March 22.*—C. G. a girl aged two years and eight months, generally healthy and vigorous, has been several days affected with a catarrh. About three o'clock yesterday afternoon, she was suddenly seized with pain in the side and very great general distress, followed in a short time by vomiting ; and thirst for cold water. She was put into bed, and measures taken by the family to procure perspiration ; but without success until some time in the night, when the skin became moist, and she was rather easier. To-day (when I have seen her for the first time) the skin continues moist ; she complains of no pain but in her head ; has vomited three or four times ; nausea constant ; takes warm drinks ; pulse somewhat quickened ; tongue natural ; continues to expectorate easily and freely.



*March 23.*—Mr. L. aged fifty-seven, has been rather ill for several days, but has taken very little notice of his illness until yesterday about noon, when he was seized with pain in his arms, which soon went into his legs and back again to his arms alternately several times, during which time it commenced severely in his head, and in the thorax. He has been at times in a delirium, but slept considerably during the last night. I first saw him about noon to-day. His pains were relieved, except that in the thorax, by a diaphoresis, obtained by taking warm drinks, and by the external application of sudorifics. His tongue is much coated, but moist. He complains of a severe pain in the right side of the chest; and at times of numbness in his limbs. His pulse is 110, and tolerably strong.

*March 25.*—M. O. a girl aged ten years, was taken this morning. She first complained of pain in her feet and legs; which were bathed in warm water, when the pain went into her ear; and immediately after, the usual symptoms so often described appeared.

*March 26.*—B. W. a girl eight or ten years old, was taken to-day, while returning from school about one o'clock, very suddenly and violently with pain in the bowels, to which the other symptoms of the fever were soon added.

*March 27.*—H. A. a girl twelve years old, was taken last evening with great general distress and violent delirium.

H. G. a man about thirty-three years old, was taken ill yesterday with symptoms of fever, without much pain or distress.

These cases sufficiently exemplify the great variety in the mode of attack of the fever under consideration, both as it respects the nature of the symptoms, and their peculiar combination in different patients. This variety was very much increased, by the great difference in the length of time, during which the several symptoms continued, before they yielded to others. How long they would have continued, or what changes they would have undergone, without the application of remedies, it is impossible to ascertain; for remedies of some kind were generally applied early in the disease; often before the arrival of a physician, and always immediately after. So far, however as it was in my power to observe, there was very little, if any, disposition to remit, in any of the more important symptoms. The patient always continued to grow worse, until something effectual was done for his relief. In many instances a diaphoresis obtained by the plentiful use of warm aromatic drinks and external sudorifics, produced a very considerable

degree of relief ; but in others, scarcely any mitigation of suffering could be procured by these means ; and in none, where the disease was at all severe, was there any thing like a complete cure effected by them. Either the same disagreeable symptoms returned after a short time, or others equally unpleasant took their place.

But after the medicines were administered, which sooner or later were successful in removing these painful symptoms, and arresting the progress of the disease, there was a very great difference in the length of time, requisite for them to accomplish this purpose ; even in cases which in other respects, did not seem very dissimilar. In many instances, in three or four hours after the exhibition of the appropriate remedies, a gentle diaphoresis came on, and most of the preceding symptoms, particularly those which were of a nature to cause much suffering, disappeared. In other cases, six, eight, ten, twelve, and in a few instances twenty-four hours or even more, passed away before this effect could be fully accomplished. Sooner or later, however, the more violent of the symptoms, enumerated as constituting the first stage of the disease, were removed, and made to give place to others, which, though many times equally troublesome to the physician, were generally much less painful to the patient.



## THE SECOND OR VOMITING STAGE.

Whatever may have been the manner in which the fever had commenced, as soon as the symptoms, which I have considered as constituting the first stage, yielded to the operation of medicines, the disease assumed a much greater uniformity of appearance and character ; and exhibited a train of symptoms in many respects different from those which had preceded. The pain in the head was removed. The dizziness became much less troublesome, being felt only upon some sudden motion of the head, or upon raising it quickly from the pillow. In the place of these two symptoms, there was often a feeling of lightness about the head. The patient generally described it as feeling unusually large and empty ; and would sometimes put up his hand, to ascertain whether he really had his own head upon his shoulders. This was not accompanied by any other symptom of delirium. For a complete delirium in this stage of the disease was an exceedingly rare occurrence. I saw only one or two instances of it, during the prevalence of the Epidemic.

The pains in the back and limbs were relieved ; so far as they had been constant symptoms. Almost all my patients were, however, subject during this stage to irregular fits of pain, in different parts of the body. The pain was often very severe while it continued, but was generally removed with ease.



The appearance of the skin was very different in this, from what it had been in the preceding stage. It seemed to be in a great measure restored to its functions, which had been suspended. It was warm, without that burning heat, which it before possessed, though still having much of the puffy feeling already described. It was moist, and rather inclined to profuse sweats. Indeed, it required a good deal of watchfulness to regulate properly the degree of moisture which served as a sort of index to direct the application of many of the remedies. After a diaphoresis was once produced, if the measures which caused it were continued with the same vigour, it soon ran into a profuse sweat; which not only greatly weakened the patient, but in a short time almost invariably led to a return of the dry skin and all its concomitant symptoms of pain, dizziness, &c. On the other hand, after the appearance of the diaphoresis, if the remedies which had procured it were entirely omitted, or negligently administered, the skin became dry, and the patient returned nearly to his former state.

How far this diaphoresis was the result of the natural efforts of the disease, it is impossible to determine with accuracy; because the disease was never left to itself a sufficient length of time, to ascertain what course it would take, if it had not been interrupted in its progress. One thing how-

ever is certain, that in no case, within the circle of my practice, did there any moisture appear on the skin, until after the application of remedies ; although in many instances, these were deferred to a later period of the disease, than that in which it appeared in other cases, where they had been early applied.

The facility with which a diaphoresis was excited, was exceedingly various in different cases. In some, not only a much longer time, but a much greater quantity of medicine was required than in others, apparently of nearly equal severity. With only one or two exceptions, however, this excretion was always produced, before the other symptoms were materially relieved ; and having once commenced, it could be sufficiently well managed, if the attendants were careful in discharging their duty. Whenever a patient relapsed into his first symptoms of dry skin, &c. I invariably considered it the consequence of his own fault, or of those about him. I had one case in which I was never able to excite a perspiration, by any means, which I deemed it proper to use, until a late period of the convalescence. The patient, a boy about six years old, was subject during nearly the whole sickness to a diarrhœa, which seemed in some measure, to perform the same offices for him, as the perspiration did for others.

At the commencement of this stage, the tongue was always dry, and covered with a thick coat, which at first was white, but soon became brown, and in many instances perfectly black. In the progress of this stage it generally, though not always, became moist; the moistness beginning at the edges and gradually extending over the whole surface of the tongue. The chilliness always disappeared as soon as the perspiration commenced, and never returned unless that was checked. The countenance was less expressive of anxiety and depression; the limbs were still subject to occasional, but not to constant numbness; the pulse was generally quick and extremely feeble. During this stage, the deceptive appearance of the pulse already mentioned, occurred oftener than before. On a slight application of the finger, it frequently felt as full, or nearly so, as it commonly is in health; but if a little compression was made, the pulsations could hardly be distinguished. This apparent fullness disappeared, if from any cause, the exhibition of tonic remedies was interrupted for a few hours, and the pulse became to the slightest examination, exceedingly small and weak.

Soon after the moisture began to appear upon the skin, the nausea and vomiting were generally relieved, with the other symptoms of the first stage. But after a few hours, the vomiting recom-

menced, though with appearances somewhat different from those it had before. There was no continued nausea, and no painful retching. The stomach simply rejected the substances taken into it. It was not an attempt to throw off any of the fluids which had already become a part of the system, but to prevent the reception of any new ones into it. The patient in most cases continued to take nourishment, and particularly drinks, with as much relish as ever: but after they had been in the stomach a very short time, without any previous or subsequent nausea, he vomited and rejected them. The thirst which had nearly disappeared in the earlier part of this stage, now returned under a new form. It was now an extremely urgent desire for cold water. But whenever this desire was gratified, vomiting was occasioned immediately, the water was rejected, and the desire for it became greater than it had been before. This sort of perverted appetite was very greatly relieved, by allowing the patient to rinse his mouth, and gargle his throat with cold water. When he was too young, or had too little discretion to do this without swallowing the liquid, a bit of linen was sometimes wet with the water, and put into his mouth, which gave a partial relief.

Although this peculiar species of vomiting was by no means universal in its appearance, in the



different cases of the disease; yet it was more general than most of the other symptoms that occurred. There were indeed a considerable number, who though perhaps severely attacked, by the seasonable application of remedies had the disease entirely arrested in its progress, and passed at once from the access, to a state of convalescence and health. But where the disease continued more than a day or two, very few escaped this symptom. The vomiting showed no disposition to remit of itself. On the contrary, unless the most active measures were taken to subdue it, it grew more and more obstinate, as the patient decreased in strength. It was at this time that the sensation of extreme faintness and sinking, which was always referred to the region of the stomach, was the most urgently felt. Many of my patients more forcibly than elegantly described it, by calling it a *gone* feeling.

This disposition to vomiting was sometimes subdued in two or three hours. It oftener lasted six or eight hours; and in some cases it continued, with only short intervals of abatement, for two or three days. In any case, it always manifested great readiness to return, upon the slightest imprudence, either in diet or management. Vomiting was often excited, after it had ceased several hours, by the patient's suddenly raising himself up, or by his taking a little too much

liquid into his stomach at once. We were able however, by cautious management, to preserve his strength from entirely failing, and after a longer or shorter time to subdue the vomiting entirely.

#### THE COMATOSE STAGE.

Soon after the vomiting had ceased, the patient generally sunk into a quiet sleep. From this sleep, he was easily awaked by the attendants, though he rarely awoke of himself, and when roused he soon slept again. In most cases, it seemed to be the natural result of his previous distress, exhaustion, and watchfulness ; which as their causes were now removed, yielded to the grand restorer of nature. The pain was entirely gone, and the dizziness mostly so—the breathing perfectly easy—the tongue commonly inclined to moistness, though of a dark color and in many cases black—skin moist, inclining to a profuse sweat—the pulse generally fuller than before, at least apparently so, and often slower. The patient in most cases, now took his medicines without the slightest difficulty, and often took some species of food with relish. In short, he felt himself relieved from his greatest sufferings, and indulged a sanguine hope of a speedy recovery.

But these symptoms were often the deceitful precursors of a more dangerous state, than any we have yet met with. In a short time, especially if the attendants had not been extremely diligent in their care of the patient, his respiration became deeper and slower, and soon after stertorous,—he was roused with difficulty, and could be made but imperfectly to comprehend what was said to him. From this cause he answered incoherently, and often fell back into a deep sleep, as the answer died away upon his lips. Sometimes the efforts which were made to rouse him, would excite a momentary appearance of anger, which however was immediately after, drowned in his returning drowsiness. He would for some time readily swallow whatever was put into his mouth, if sensible enough to know that it was there. His head became hot, and his face swelled, and of a deep crimson and almost purple colour. His eyes, if he was roused enough to open them, gave but a vacant stare, without apparently recognizing any object. The whole body was covered with a profuse sweat,—the extremities grew cold and insensible; the pulse became still slower and often intermitted, although it still generally felt under a slight pressure, as if full and strong.

Even now the case was not hopeless, when we could depend upon the assiduous care of all the attendants. I have repeatedly seen patients re-

cover from this complication of threatening symptoms. But unless the most vigorous and persevering exertions were made, the breathing became rapidly more and more stertorous, and at the same time laborious. The coma became so deep, that the patient could not be roused from it. The muscles of deglutition being no longer excited by the fluids put into his mouth, however stimulant in their nature, they were suffered to remain there, or more often they were forcibly ejected upon the clothes and into the faces of the attendants.\* The colour of the face assumed a deeper and almost livid hue, and livid spots appeared on various other parts of the body. The coldness of the extremities extended itself more and more over the surface of the body. Suddenly the pulse became excessively weak, quick and fluttering,—the urine and fæces were passed involuntarily—the breathing became slower and slower, until death closed the scene.

All the patients that I lost by fever not only during the Epidemic, but through the whole of

\* This circumstance occurred in several instances. The presence of the liquid seemed to excite the fauces to an effort for its removal, although not sufficiently, to cause it to be swallowed: either because the natural associations were destroyed, or the powers of the will had become indistinct. The force with which the fluids were sometimes thrown out was surprising. I have seen them thrown more than the length of the bed, on which the patient lay, sprinkling the clothes and persons of the attendants, in every direction.



my residence in Gardiner, died in this manner. In the Epidemic, the period from the time when the most flattering hopes were rationally indulged, to the fatal termination was, from about twelve to twenty hours. But several of the last hours were after the patient had ceased to take any thing into his stomach. It is remarkable that the skin continued to be susceptible to the action of blisters, until a very short time before death.

As many who were attacked by this fever escaped the vomiting stage, so there were others, who after passing through both the preceding stages, escaped the comatose. In the early part of the season the accession of coma was much less common, than it was at a later period of the Epidemic. Until late in March, very few cases occurred in which this was a prominent symptom. As the weather became warmer, it was more frequent; so that in April and May, almost every severe case was more or less inclined to it. Among those who were in some degree subject to coma, the greatest part were preserved from the deepest state of it. If proper care had been taken to support the strength of the patient, in the earlier periods of the disease, the accession of coma, generally gave very little cause of alarm, unless it was produced by the mismanagement of the attendants.

But it was extremely difficult, and often impossible to impress them sufficiently with the importance of watchfulness, and the danger of remissness in the application of remedies, when this symptom first appeared. Having witnessed the previous sufferings and exhaustion of the patient, they were exceedingly inclined to omit giving him the medicines, nearly so often as they had been prescribed ; in order that he might be permitted to sleep a longer time, without disturbance. The coma approached so insidiously, that it gave them no alarm, until it had advanced so far as to render it very difficult to administer the remedies, which should arrest its progress ; and in some cases it became impracticable, before they were aware, that the situation of the patient was particularly dangerous. Thus at the very moment, when more than at any other, it was of the utmost importance, to support the strength with the most active diligence, the means intended for this purpose were neglected, until it became almost impossible to use them. In this manner several patients died. I had left them, in every respect getting better. At my next visit, I found them irrecoverably sunk into a deep sleep. Their attendants seeing them inclined to sleep, notwithstanding my constant and earnest directions, had suffered them to remain for several hours in succession, almost without disturbance, in the mistaken belief that rest was

more important to them, than nourishment or medicine ; and it was not until they ceased to swallow them, that this vain confidence was destroyed. In similar cases, if the powers of deglutition were not gone, or very nearly gone, before I arrived, we were still able to excite the dormant faculties, to the performance of their functions.

But in cases where the strength had been carefully supported from the first, and where, on the appearance of the comatose state, the patient and his attendants were disposed to second the exertions of the physician, with unremitting watchfulness and diligence, the disposition to excessive drowsiness soon subsided, and the patient became at once decidedly convalescent.

In a few very severe cases a strong disposition to coma appeared, in the very commencement of the disease. It disappeared with the other symptoms of the first stage, when the skin became moist, and the vomiting came on.

#### THE CONVALESCENT STAGE.

I have already observed that the fatal cases of the disease under consideration, always terminated in the comatose stage. It only remains to speak of the more favorable terminations, and to describe the appearances and phenomena during

the recovery to health. Here again the symptoms were as various, in their nature, order and duration, as they had been at any preceding period.

The recovery was characterized in general by a subsidence, more or less gradual, of all the symptoms which had constituted the disease. But this was not generally in a steady uninterrupted course of improvement. Frequent and sudden relapses often occurred, especially if the case had been a severe one; and new symptoms appeared, which had not formed any part of the previous disease.

The first and most essential symptom of the convalescence, one in fact without which the patient immediately ceased to be convalescent, was a genial, uniform moisture upon the skin. It was important in this, as well as in the preceding stages, that this diaphoresis should be continued without interruption, and without being suffered to become excessive. If it was checked, even for an hour or two only, many of the symptoms of the first stage of the disease would immediately recur. On the contrary, if the evacuation was profuse, the patient was much exhausted by it, and was exceedingly liable to relapse, soon after, into dryness of the skin, and other bad symptoms. In the early part of the recovery, it required a con-



siderable degree of watchfulness and care, to preserve the skin in that state of genial perspiration, which was so desirable. But as the cure advanced, there was less and less tendency, either to an obstruction or an excess of this secretion.

The appearance of fullness of the skin diminished, as the patient returned to health. The previously bloated, and almost œdematous state of the body had concealed the emaciation, which is always the consequence of severe diseases. As this state declined, especially in those cases, which had been long continued, it left a sort of ghastliness of countenance, which to the inexperienced, was often more unpleasant than that which had preceded it. The physician, however, could not be deceived by it. For although the countenance was thin and sunken, it had the expression and animation of returning health.

During the whole course of the convalescence, until the cure was perfectly completed, most persons were subject to occasional attacks of pain and numbness, either together or separate. The pain was of short duration in any one place, but often severe while it continued. Being removed from one part, which was generally done with great facility, it seemed to be entirely cured for some time, and then suddenly made its appearance in another, with a severity like that of

rheumatism. The numbness, whether it accompanied the pain or attacked by itself, was subject to the same irregularities, and was generally removed by similar means.

After the epidemic season had considerably advanced, an eruption on the skin became a very common symptom, during the recovery. It did not appear in but few, if any cases, before about the first of April; but after that time, almost every patient was subject to it. It varied in its appearance in different cases, but generally was a slight efflorescence on the skin, attended with redness, heat and itching. The skin was very slightly elevated, and uneven, but commonly not pimpled. It subsided in two or three days, of its own accord, leaving a branny scurf upon the skin, from the desquamation of the cuticle.

This eruption seems not to have been in any degree critical. It did not usually come on until after the most severe symptoms of the disease had been relieved, for several days; and it was not attended or followed, by any very observable additional amendment. Neither on the other hand, did it appear to increase the fever, or in any way add to the sufferings of the patient, except by the external heat and irritation, which were not often severe. It may perhaps be a question whether the eruption is not to be attri-

buted to the treatment, rather than to the disease itself. If this were the case, I see no good reason why it should not have begun earlier in the disease, and continued longer. The most probable time for the perspiration to have produced an eruption, would have been immediately after the skin resumed the exercise of its functions ; whereas this did not appear, until several days had elapsed. Besides, how was it that the eruption subsided and disappeared, while the perspiration and treatment remained the same, if they were the cause of it ? The question however is of very little practical importance, for the inconveniences which were produced by the eruption were so slight, as hardly to amount to an objection to the mode of treatment, even if we allow it to have been attributable to this cause.

Another common affection of the skin and cellular membrane, during the convalescence, was a species of boil or carbuncle. It did not commence until the cure was considerably advanced, generally several days after the eruption had disappeared, and sometimes not until the patient had so far recovered, as to have left his chamber. It was an exceedingly painful swelling, beginning in the form of a small pustule ; which discharged a slight quantity of yellowish ichorous fluid, and was surrounded by an areola, which was of a bright red colour, and hard ; the hardness extending deep

into the cellular substance, and attended by a burning, itching sort of pain. As the inflammation rapidly extended itself, the centre became considerably elevated, and changed to a deep purple, and almost black colour. In a few days it ulcerated, and cast off a gangrenous slough, and then soon healed. The discharge from it was never very copious. These tumours varied very much in their size, and in the extent of the inflammation. In some, the slough was not larger than a small pea, and the areola not more than two or three inches in circumference. In others, the slough was an inch or more in circumference, and the circle of inflammation as large as a small plate. Every part of the body was subject to them; but they were particularly frequent on surfaces, from which blisters had healed. Several small ones often appeared together, in these situations. The breast, in males as well as females, was a frequent place of their attack. Generally the same patient was not subject to many of them; but in a few instances, new ones appeared as the old ones healed, for a considerable length of time.

The same species of tumour was very common among those who had not been sick with the fever. In these cases, it did not appear to operate as an effectual preventive of the fever, if they exerted any influence of this kind; for in several instances, those who had recovered of them, afterwards



went through a course of the fever. I do not recollect any instance of a person, who had perfectly recovered from the fever, being affected with carbuncles.

In this period of the disease, the tongue, which had already become moist, began to part with its coat, first at the edges, and gradually, as the cure advanced, from its whole surface. It generally lost very little of its dark colour, except as the coat separated. In some instances, especially rather late in the season, the coat separated prematurely, leaving the tongue and fauces naked and sore. In a few others it was retained to an unusually late period. I one day met a patient who had been extremely sick, but had recovered so as to be able to walk out several times, standing in the street some distance from home, exhibiting his tongue to his neighbours as a curiosity. It had a stripe, about half an inch in width, through the middle of its upper surface, which was covered with a thick and perfectly black coat. The rest of the tongue had a healthy appearance.

When there had been a cough in the earlier part of the disease, it gradually subsided by a free and easy expectoration. The matter expectorated was a thick mucus, in some cases, streaked with blood. In a very few instances, early in the season, a cough commenced after the severe

symptoms of the attack had subsided, and where there had been no symptoms of a pneumonic affection at the beginning of the disease. It was attended by a bloody expectoration, as in other cases, and went off in the course of the cure, without difficulty.

In some cases, the appetite for food had not been wholly lost, even in the worst of the preceding stages of the fever; and in others where it had been destroyed, it commonly re-appeared pretty early in the convalescence. The patients at first fed principally upon simple soups, and relished them well. But some time before the cure was completed, they commonly began to desire more solid food, and to express a dislike for liquid nourishment. The appetite was at this time often excessively capricious, craving articles of diet, apparently very unsuitable to the situation of the patient. Salt meat, salt fish, cheese, and pickles were some of the articles which were most frequently and earnestly desired.

Where these cravings were urgent and continued, I generally allowed them to be satisfied, though with much caution and moderation; and in no instance did there any injury result from the indulgence, if proper care had been taken to distinguish the whims of a restless patient, from the

desires of an unnatural appetite ; a distinction which was in most cases easily made.

In much the greatest proportion of cases, the pulse was gradually reduced in frequency and raised in strength as the patient recovered. In a considerable number, however, it suddenly became preternaturally slow, early in the convalescence. This happened particularly often in the first part of the season. In some instances, after continuing slow for several days, it suddenly resumed nearly its former quickness ; in others, it gradually recovered its natural quickness, as the strength of the patient was restored.

Such were the most obvious and important changes which took place, during the recovery from this fever. They were almost infinitely diversified, by the irregularity, with which they appeared at different periods, and the variety of their combinations. Relapses, and partial relapses were perpetually varying the appearance of the disease, and mingling the symptoms confusedly with each other. Yet notwithstanding these irregularities and relapses, the recoveries were generally rapid and complete.

In a few instances the disease was prolonged by untoward circumstances ; but in most, the patients were out of their chambers, within a week



or ten days from the commencement of the convalescence. The restoration to health was in almost all cases, perfect. Several persons who had previously been rather feeble, had better health after their recovery from the fever, than before they were attacked by it. Only two or three of my patients became subject to chronic illness, in consequence of having suffered from the fever; and these probably owed their subsequent debility, more to their own mismanagement, than to the inherent nature of the disease.

#### GENERAL OBSERVATIONS.

I am apprehensive that the preceding description, conveys an impression of regularity and uniformity, in the symptoms of this disease, much greater than it actually exhibited. It is not to be forgotten that, although order and arrangement are indispensable in the description, they were constantly interrupted, in the disease itself, by the frequent appearance of anomalous symptoms, and the perpetual intermingling of many of the symptoms of the different stages.

At any period of the disease, if by any means the perspiration was checked, and the skin suffered to become dry, many of the symptoms of the access were immediately renewed, and formed irregular combinations with those which previously



existed. This occurrence was particularly likely to happen, upon any sudden change of the weather from warmer to colder. Whether the effect of this change is to be ascribed to the neglect, or the difficulty, of suitably adjusting the bed-cloths to the wants of the patient, in this new state of the atmosphere ; or to any peculiar influence which the air itself, or the cold suddenly applied, might exert upon the disease, I shall not stop to inquire. The fact is sufficiently apparent, that in a very large proportion of cases, the patient suddenly became much worse, whenever such a change in the temperature of the atmosphere occurred.

It will be proper here to take notice of a variety of symptoms, which occasionally appeared, but which were not sufficiently prevalent, or not sufficiently constant in their time of appearance, to enter into the preceding description.

I have already observed that during the convalescence, the coat upon the tongue sometimes separated prematurely, leaving a soreness of the tongue and fauces. In a very few instances, this separation took place very early in the disease ; and once or twice, without producing the soreness here spoken of. In this last case, although the patient was very sick, and in the worst stage of the fever, the tongue for several days exhibit-

ed no marks of disease whatever. Wherever this premature separation had taken place, a new and slighter coat appeared upon the tongue, after a few days, which was removed in the progress of the cure.

A soreness of the mouth and throat sometimes occurred, without any preternatural nakedness of the tongue. In a few cases this symptom appeared very much like an ordinary sore throat; especially where the patient had been affected with a cough. In others, it was a swelling and inflammation of the gums and fauces, and was accompanied by a partial salivation. This was not a mercurial salivation, for it occurred in cases where the patient had taken no mercury in any shape; and in several instances it appeared at the very commencement of the disease, before any medicine whatever had been administered. This symptom seemed to have very little influence upon the general disease, and did not require any other modification of the treatment, than to relieve the temporary inconveniences it occasioned; except in a very few cases, in which the soreness of the throat rendered the patient unwilling to take the necessary remedies, in consequence of the pain produced by swallowing. It generally went off in two or three days without any difficulty.

I had one case, in which an inflammation attacked the left eye, on the third day of the disease, and in a day or two became very violent. It was principally confined to the upper eye-lid, which swelled so as to overlap the other, and entirely to close the eye. It however disappeared in a few days without suppuration, merely by the application of a solution of acetite of lead.

It is remarkable, that in some even severe cases, the sense of taste was not destroyed, nor very considerably impaired, in any stage of the disease. Although the tongue was covered with a thick coat, some patients would take food in considerable quantity, with almost as much relish as in health. Even solid, hearty food, such as boiled salted meat, was in a very few instances desired, though of course not allowed. In the same manner, the taste for tobacco continued in some of those who had been accustomed to its use.

I had a patient pretty severely affected by the fever, who remarked to me one day that he not only could chew his tobacco, as in health, which he never could do in any previous sickness, but he could also swallow the juice of it with his saliva, a thing which he could never do, when he was in health. A day or two after this conversation, he grew very ill in the afternoon, complain-



ed of great distress at his stomach, with extreme faintness, with a cold clammy sweat over the whole body. These symptoms increased in severity until about twelve o'clock, when he vomited and was relieved. At my visit next day, I found on inquiry that he had been induced, by observing the facility with which he had swallowed the juice of tobacco, to extend his experiment still farther, and had actually eaten a pretty large piece of the manufactured herb. He attempted to repeat his experiment, at a subsequent period, during his convalescence; but his stomach had recovered the use of its functions, too much to permit him to succeed in swallowing it.

Delirium is mentioned among the symptoms, with which the fever frequently commenced its attack. This was in most cases mild and of short duration. In one instance, however, it was wild and raving, and continued through the whole course of the disease, which was long and severe. The other symptoms of the case had nothing very peculiar in them; nor was the treatment very different from that of others, except the free application of blisters, and of cold to the head. The patient recovered.

Two cases occurred under my observation of singular affections of the larynx, which deserve to be mentioned. One was a total loss of the



voice. The patient had been sick several days, and had begun to get better, when he fatigued himself, by talking a good deal with a friend. The next day his voice was very much broken, and the day following was entirely gone. He could articulate, in a whisper, with perfect distinctness ; but could not make a loud sound of any kind. This continued two or three weeks. Indeed he did not perfectly recover his voice until he had repeatedly taken exercise in the open air. It was afterwards perfectly restored. The other affection referred to, assumed the appearance of croup. The patient, a boy about a year old, had a constant hoarse cough, for the first two days ; and was at irregular intervals subject to difficulty of breathing, with the peculiar stridulous sound which characterizes the croup. At other times the respiration was free and easy. This symptom disappeared in two or three days, and the patient soon after recovered.

It is very remarkable that there were some organs, which seemed generally to partake in but a very slight degree, if at all, in the disease under which the system was labouring. They continued to perform their functions, with nearly the same regularity as in health. This was more particularly the case with some of the abdominal viscera. The bowels showed but very slight marks of disease, except in a very few

cases. There were a few instances of diarrhœa in the commencement of the disease ; and it sometimes made its appearance at a later period. In this last case, however, the diarrhœa could generally be readily traced to some article of diet or medicine, which the patient had taken. There was much more often a tendency to costiveness, than to diarrhœa. This might be the effect of the opium, which was always administered in greater or less quantities ; or it might, in part, result from torpor of the bowels, produced by disease. Whatever might be the cause, the disposition to costiveness was not generally productive of much serious inconvenience, as it was readily removed by the mildest cathartics, or by emollient injections. In some cases it was more troublesome, giving rise to flatulence and pain in the bowels, and requiring more active cathartics, than the strength of the patient could well bear. Indeed in most cases the bowels in a slight degree partook, in common with the limbs and other parts of the body, of the liability to irregular wandering pains. But these pains did not generally require much attention, as they were rarely severe, and were easily removed.

The urinary organs also appear to have been in general, very little affected during this fever. I find in my case-book no notice of any affection

of these organs ; nor do I recollect any, except a slight degree of dysuria, which sometimes occurred. This dysuria might generally be the effect of absorption from the blistering plasters which had been applied ; or it might be produced by a partial retention of urine, occasioned by the torpid action of the muscular coat of the bladder : or more probably, it was the effect of both these causes combined. The retention and pain were readily relieved by friction of the bowels with oil, and were prevented from recurring by administering mucilaginous drinks.

The uterine system in females, seemed equally free from any participation in the disease. The menses sometimes appeared in their regular course during the fever, and without modifying scarcely a symptom of it. In a few cases they appeared prematurely ; but their effects were equally unimportant. No instance of an immoderate menstrual evacuation during the fever occurred in my practice. A state of pregnancy, or of child-bed does not appear to have rendered women any more liable to the fever ; nor was a miscarriage in any instance occasioned by it. Cases of pregnancy combined with fever, were not perhaps very numerous, though some certainly occurred, and without any apparent inconvenience to the future offspring. There were several instances in which women far advanced in



pregnancy, had the care of persons sick with the fever, without themselves becoming the subjects of it. Of a considerable number of women who were confined during the prevalence of the Epidemic, all recovered from the puerperal state, without any attack of fever. The only case in which there could be any possible relation, between the puerperal state and a subsequent fever, was a lady whose child was nearly two months old, and who had been in usual health, two or three weeks, before she was seized with the fever. Her sickness was severe, but did not manifest any peculiar symptoms, which could in any degree be referred to her previous confinement. Her infant was taken from the breast, but was restored after her recovery; and she was able to nurse it as before, the secretion of milk not having been materially affected.

I have hitherto said nothing of any *spots* upon the skin, although their real or supposed appearance has in many places given a name to the disease. The reason is, that I have very little to say respecting them. In most or all of the fatal cases, just before death, small patches of a purple or rather livid colour were irregularly dispersed over the surface of the body. They had a considerable resemblance in their appearance, to small extravasations of blood into the cellular membrane, and were probably produced by the stag-



nation of that fluid, in the small vessels of the skin. In two or three other cases, spots somewhat similar to these in their appearance, but of a less livid colour, were discovered at an earlier stage of the disease. But they occurred early in the season, and only where the fever had continued several days, without any steps having been taken for its removal. They disappeared as soon as the skin was excited to action, either by friction, or by internal remedies. I have never observed any tendency to the production of these spots, while the skin was moist, except in the fatal cases already mentioned ; unless the eruption formerly described as taking place during the convalescence, is to be confounded with them ; and this was exceedingly dissimilar in its appearance.

There was one circumstance relating to this fever, which I mention with diffidence as a symptom of disease, though from the frequency of its occurrence, I think it entitled to some notice. Whenever the situation and feelings of the patient were such, as to induce him to regard himself as in danger of speedy death, he appeared to be entirely exempt from the alarm and anxiety, which such a state of things usually produces. He had no terror at the prospect of dying, nor any fearful anticipations, as to what awaited him beyond the grave. But on the contrary, he seemed to be elevated above every subject of appre-

hension, and was filled with joyous exultation in the contemplation of futurity.

Had this peculiar excitement at the expectation of death been less general, or had it been confined to any particular class of people, or to any religious denomination, I might have regarded it as the effect of religious ardour, or enthusiasm. But it was almost as universal, as the state of the disease in which it appeared. Whatever might be the situation in life of the patient, if he was only of an age to express his feelings ; whatever his religious opinions, or his moral or religious character, he was alike subject to this singular elevation of feelings, at the prospect of death. It was not of course during the comatose stage, when death seemed actually the nearest, that this state of the mind was manifested, for he was then equally insensible to the hopes of life or death. It generally happened during the exhaustion produced by a protracted continuance of the vomiting stage, although it occasionally appeared in consequence of a relapse, at other periods of the disease.

This circumstance displays in a striking manner the influence which diseases may have upon the state of the mind and feelings, and the impropriety of regarding these feelings as indicative of the past character, or the future prospects of a

dying patient. But I shall not stop to take notice of the uses which the christian moralist might make of it, nor to inquire into its probable causes. I mention it, because it was one among the multitude of phenomena which this disease exhibited.

#### OF THE CRISIS AND DURATION OF THE FEVER.

I have no means of ascertaining very accurately, how long this fever would have continued to rage, if it had been left to itself; or whether it would ever have been disposed to throw itself off, by a crisis of its own formation. The disease was generally taken out of the hands of nature, very soon after its commencement. In every case that came under my observation, remedies were applied immediately upon my first seeing the patient; and in many instances, some applications had been made before my arrival. Although in consequence of the lightness of the attack, application to a physician was sometimes delayed several days, something was generally done by the patient or his friends, to endeavour to remove the disease, soon after it began.

Early in the season, however, before an alarm was excited by the prevalence of the Epidemic, two or three cases occurred, in which very little if any thing was done to effect a cure, during the



first three or four days of the disease. In each of these cases, it had commenced in its mildest form ; but it grew constantly worse, until arrested by the application of remedies. There was not manifested in any instance, the least disposition in the symptoms to remit, until forced to yield to the power of medicine. In the more severe attacks, the progress of the disease was so rapid, that there could hardly have been time for a perfect crisis to form, had there been any disposition to it. If to these considerations, we add the constant disposition which the disease manifested, after it had been arrested by medicines, to relapse whenever their exhibition was suspended, I think we may pretty fairly conclude, that in most cases at least, the only natural crisis would have been *death*.

When the cure was effected by medicine, nothing appeared like the crisis which is described, as having anciently taken place in fevers: where after a certain length of time, the disease assumed a disposition to return voluntarily to health. On the contrary, every step was obstinately disputed ; and until the cure was firmly established, the most vigorous exertions, and unremitting vigilance were necessary, to prevent a recurrence of the bad symptoms, which had been relieved. The principal circumstance which had in any degree the appearance of a crisis, was the diaphoresis.



But this, after it had been produced (as it always was) by artificial means, showed no disposition to continue any considerable length of time, without the continuance of those means. Nor was it ever effectual to remove the disease, without the concurrence of other circumstances, which acted independently of this.

The duration of the disease was exceedingly various, according as medical aid was called earlier or later in the disease, and as the patient and his attendants were more or less vigilant in the application of the remedies prescribed; as well as to the severity of the attack, and a variety of other circumstances which are not under human control. In a very considerable number of cases, where I was called at the commencement of the disease, we were able to arrest it so completely, that the patient recovered immediately; and it was not necessary to prolong my visits beyond the third day. Others continued longer, so as to require attendance from four to ten, or twelve, and a few, fourteen days; and very rarely longer. In more than half the cases, my visits were not extended beyond the first week. It may be proper to remark here, that in consequence of the number of the sick, and the distance between them, I often left my patients earlier in the convalescence, than I otherwise should have done. When they had so far recovered, as to be able to sit up,

an hour at a time without injury, unless there was some special circumstance to prevent, I generally discontinued my visits. This was before they were out of the danger of a relapse; but the uniformity of the management required for the last stage of the convalescence, rendered the farther attendance of a physician less necessary.

Of the fatal cases, two died on the second day from the attack, one the third, one the ninth, one the thirteenth, one the sixteenth, and one the twenty-second. All of these, who lived beyond the third day, had become decidedly convalescent, and relapsed, before they died. These seven were the only deaths that occurred, in my practice, during the prevalence of the Epidemic; and of these, it will hereafter appear that most, if not all were to be ascribed to circumstances, which were contingent and accidental, rather than inherent in the nature of the disease, or dependent upon the treatment which it generally received.

I trust it is unnecessary to say, that in this statement of fatal terminations, I have not confined myself to those only, which I consider as having strictly been produced by the fever; but have included all who died after having been affected with it, whatever might have been the immediate cause of death. Indeed this statement includes all the deaths that occurred in my prac-

tice during the prevalence of the Epidemic; except that of one child, which was produced by dentition, complicated with catarrh, attacking a habit of body so feeble, that at the age of more than two years, the child had never been able to walk.

While the Epidemic prevailed, no other diseases made their appearance, except such as had their origin in some local affection. It will be seen by a reference to the tables, that I had several calls to children made sick by dentition, and a very few other local complaints, but to no general disease, except the fever under consideration. So true is it, that an Epidemic swallows up every other disease during its continuance. It was a remarkable result of this general law of nature, that the number of deaths in the town, seems almost to have been diminished rather than increased, by the prevalence of so powerful an Epidemic as this, which we have been describing. For although the first five months of the year 1814 were probably more sickly than any other period of equal length, since the first settlement of the town, yet the number of deaths was less than it was during the same part of the year 1817, which was considered an unusually healthy season. I regret that the comparison cannot be extended to other years. But I have no data upon which to found it. My acquaintance with the distant parts



of the town was too limited to enable me to make accurate observations of this kind, unless there was something a little unusual to attract the notice of the inhabitants, as in the two years I have mentioned ; and there are no records from which the requisite facts can be drawn.

Those who had been once sick with this fever, and had recovered, were not thereby protected from a second attack. Several cases occurred under my observation, of persons who having gone through the fever, and who had been perfectly restored to their usual health, after continuing to be well for several weeks, were again seized, and obliged to undergo a second course of disease and suffering. In most of these cases the first sickness had been comparatively light, and the second was generally very severe, though in no instance fatal. In a few others, the first sickness was severe and the second light. I believe there was no instance in which the same patient was subjected to two attacks, both of which were severe ; nor was any one attacked the third time with the disease, in the course of the season.

This is perhaps the most suitable place to speak of the manner in which the disease extended from one person to another. Not indeed to discuss the question whether or not the disease was contagious, for I shall defer that question till all the



facts are before the reader : but to furnish the statements upon which such a discussion must principally be founded.

The disease was as variable and seemingly capricious in the selection of its victims, as it often was in the subsequent disposal of them. There was a general tendency, when the fever appeared in a family, to subject a considerable proportion of its members to its influence. Yet in almost every family, into which it entered, some escaped its attacks, and in most, the number of those who were not severely affected, was greater than that of the sick. A few instances occurred, in which one person only, in the family, was seized, leaving the rest free through the whole season. Of those who were attacked, in families, where the disease had already prevailed, it often happened that those who had been the least with the sick were the first victims, while those who had been constantly employed in watching over and nursing the sick, often escaped. No particular reason can be given therefore, why those who were seized with the fever, should have been its victims in preference to others, who had been equally familiar among the sick, and equally exposed to fatigue.

Neither was the disease confined to those who might be supposed to have been exposed to its

influence in others. It often attacked persons who had not been near the sick, and appeared in families, not one of which had seen a case of it. Sometimes two or three persons in a family, living at a distance from where the disease had before raged, were attacked almost at the same time, or in such immediate succession as to preclude the possibility of a communication of the disease from one to another. In other instances several families in a neighbourhood became nearly at the same time subject to its ravages, without having previously had any intercourse with it. At the same time, there were other families, living in the village where its ravages were the greatest, in the immediate vicinity of the sick, and performing all the kind offices of good neighbourhood, by which a constant intercourse was kept up with them, which were entirely passed over by the disease. In like manner, several individuals who were the most active, in visiting and supplying the wants of the poor, that were sick, and who frequently saw the disease in its worst forms, and while exposed to great fatigue, were nevertheless entirely free from its influence upon themselves.

The following cases will serve to exemplify these various modes in which the disease was extended.

ABIGAIL L. was the first person who came under my care sick with the fever. She was taken the 7th of *February*. The Epidemic had not then appeared in town, and she had not been exposed to it, any where else. *February 25th*, her sister SALLY began to complain. She had lived constantly in the same house, and been engaged in various offices for her sister, although she had not had the immediate care of her. *March 5th*, SOLOMON L. was taken pretty violently. He is a brother of the others, but had not lived in the same house ; and being actively engaged in business had only visited them occasionally. *March 13th*, BENJAMIN L. another brother who is married, and lives in the house with his sisters was seized with great violence ; but recovered in a few days. He lived in another part of the house, and had no particular care of the sick, though he was in the room frequently. *March 16th*, Mrs. J. a sister of the others, who lived at a little distance, and in whose family SOLOMON resided, was attacked. She had been frequently with her sisters, and had taken the principal care of SOLOMON. *March 17th*, Mr. L. father of the others began to be ill, though he was not so sick as to call a physician, till several days later. He had not been very constantly in the sick rooms, but had been much exposed to fatigue, in attending to the out-of-door concerns of his sick family, and had been much depressed by the weight of affliction which

he suffered. *March 22d*, R. T. a young woman, who had nursed Mrs. J. became sick. *April 1st*, SAMUEL J. an elderly man, father of Mrs. J's. husband, was seized, and died the third day. He had had very little immediate communication with the sick, though he lived in the same house. *April 17th*, Mrs. L. wife of Mr. L. (who died on the 30th ult.) was attacked. She had been constantly employed in the sick rooms, ever since the disease first appeared in her family ; and had been very much borne down by their complicated sufferings. The same day Mrs. J. wife of SAMUEL J. was taken sick. She had been constantly employed in taking care of her husband, and the other members of her family, whose sickness had preceded hers. *May 1st*, Mr. T. a man who was residing for a few days in the family of Mr. J. became sick. *May 15th*, WILLIAM J. the husband of the first mentioned Mrs. J. was violently seized, and died the third day. He had not been much engaged in taking care of the sick ; but had exposed himself very much to cold, wet and fatigue. This was by far the most extensive, as well as the most destructive range, which the disease took in any one family connexion. During all this time, the wife and child of BENJAMIN L. who had been constantly in the sick rooms, and a Mrs. D. who had been successively employed in nursing the different members of the family, and in performing the last and most disagreeable offices, for those who had died, and several persons



who had constantly lived in the family of the J's. were not at all affected by the disease.

On the 27th of *March*, Mr. B. a gentleman eighty years of age, was very suddenly and violently attacked by the fever. On the 31st, his wife, Mrs. B. was attacked and died the third day. *April 1st*, a young woman, their domestic, and the only remaining member of their family, was also violently seized. Immediately after Mr. B's attack, his daughter Mrs. L. and her husband, and Mr. G. the husband of another daughter, with some of his family, came to the house and remained a great part of the time till his recovery. Mrs. G. having a young infant, did not come to stay until a week later; and was afterwards prevented by the same circumstance from being, so much as the others, in the sick room. She was notwithstanding taken very sick on the 15th of *April*, and recovered with difficulty after some time, while neither of the others, who had constantly performed all the offices of kindness and attention for the sick were affected. On the 16th of *April*, the only daughter of Mr. and Mrs. L. and their servant girl, neither of whom, I believe, had ever been into a house in which the fever had prevailed, were both suddenly seized about the same time, and with great violence.

*April 8th*, I. L. was attacked with the Epidemic. *April 13th*, one of his sons, and the *14th*, another was also attacked. This family lived two or three miles from any house, in which the fever had before appeared, and was the only one in the vicinity, which was subject to it ; although their neighbours frequently visited them, and performed many of the duties of nursing for them during their sickness. No members of the family had been with the sick in any other house.

In a little village about three miles from where the Epidemic had before appeared, Mrs. R. was taken sick on the *25th* of *March*, as were two children in a family at a little distance. On the *26th*, Mrs. R's daughter, and about the same time, a sister of the children just mentioned, and two children in another family in the vicinity were taken ; and on the *27th*, another child in this last mentioned family. Here the disease stopped its progress in that neighbourhood. None of these persons had been with the sick, until the disease appeared in their own families.

#### APPEARANCES AFTER DEATH.

The livid spots which had begun a short time before, increased at the moment of death, and assumed much of the appearance of incipient sphacelation, for which they were often taken by

the attendants. The lividity soon after extended over nearly the whole body ; the features were speedily dissolved, and in a few hours, symptoms of putrefaction commenced. Although the funeral was generally attended the second day, in most cases the body had become quite offensive before it was committed to the earth.

To this short sketch I would fain have added the appearances on dissection. But I have no materials from which to do it. I am not insensible of the great importance of dissections, in investigating the nature and character of diseases ; and was not inattentive to this part of my professional duties ; though from the circumstances in which I was placed, I was prevented from accomplishing any thing. I faithfully sought opportunities to examine the bodies of the patients I lost ; but could not succeed in obtaining permission from the friends of the deceased. Such examinations had rarely been made at Gardiner ; and the prejudices, which existed against them in the families in which deaths occurred, were too strong to be overcome by a young practitioner, unaided by the support of the senior counsel, who sometimes met me in consultation. The very disposition to inquiry, which the desire to make dissections manifested, was a cause of suspicion with those who were ignorant of their usefulness.

### CHAPTER III.

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#### TREATMENT OF THE FEVER.

It will not be necessary, in speaking of the treatment of this disease, to adhere very closely to the arrangement which I have adopted in the preceding chapter; nor to attempt to follow the course of the symptoms, in describing the remedies which were to remove them. There were certain general circumstances, which entered into the management of every case, and of almost every stage of the disease. These, although few in number, were of essential importance. There were many others, which were applicable only to the particular symptoms of individual cases; and were consequently as various as the changing features of the Epidemic itself.

The first and leading object, always was to restore, and continue in force the functions of the skin. The second, which was hardly less important, was to support the strength of the patient. The remainder of the cure was effected, by re-



moving the great variety of occasional symptoms which occurred. The means for accomplishing the two first objects, were pretty uniformly the same in the several cases. But for the last, the whole *Materia Medica* presented a field hardly enough variegated, for the complicated and perpetually changing evils to be removed.

At the beginning of the Epidemic season, I pretty generally commenced the treatment, by administering an emetic. But not finding in most cases, the benefit from its operation, which I had anticipated, I soon omitted it, except in cases where there had been symptoms of a derangement of the functions of the stomach, previously to the attack of fever. In these cases, an emetic at the commencement of the disease was of very great service, and sometimes entirely arrested its progress.

Before the emetic was given, however, the patient was put into bed, and pretty commonly had made use of the warm pediluvium. As soon as the operation of the emetic had ceased, or, if one had not been given, at the commencement of the treatment, I administered a powerful diaphoretic, which was repeated at intervals of from two to four hours, according to the urgency of the case. At the same time such external applications were often made, as should aid in the production of a

diaphoresis. These however were ordered to be discontinued, as soon as the perspiration commenced; and were not afterwards renewed, unless by accident, or inattention, the skin had been suffered to become dry. It frequently happened, that these applications were made before my arrival, so that I found the patient already in a profuse sweat. In this case, I ordered the gradual removal of the external applications, and trusted to the medicines to keep up the diaphoresis.

If the limbs were cold or numb, or subject to pain, directions were given that they should be diligently rubbed, either with the naked hand, or with flannel, either dry or moistened with oil, or with some stimulating liquid, such as vinegar, or alcohol, and sometimes with a solution of cantharides. The quantity of bed clothes was regulated by the feelings of the patient. If he was cold, they were increased, so far as it could be done without oppressing him by their weight. If he was uncomfortably warm, they were lightened.

The urgent desire for liquids which the thirst occasioned, was freely gratified by allowing whatever drinks the patient chose. These were generally, decoctions of some of the aromatic herbs, particularly peppermint, pennyroyal, and ground hemlock, or dwarf yew. They were taken in large quantities, and generally as hot as they could

be borne, because they were preferred in that state by the patient. In a very few cases in which they were more grateful when cold, they were not warmed. Indeed, I did not consider it necessary in the commencement of the disease, to refuse hardly any kind of drink, which a patient desired, whatever might be its nature or temperature. In a subsequent part of the disease, more caution was requisite in selecting the means of removing the thirst; because the appetite became a fallacious indication of what was needed to supply the wants of the system.

In this manner the cure was always begun, and in cases in which the strength was not particularly depressed, very little else was prescribed at the first visit, except an anodyne at bed time. In the first part of the season particularly, when the pulse was often considerably full and strong, and especially if there were symptoms of a pneumonic affection, I waited until these symptoms had somewhat remitted, before I began to administer the tonic remedies, which held a conspicuous place in the general plan of treatment. But when, as in a great proportion of cases, the strength was low from the first; or if it had become so by the continuance of the disease, it was necessary in addition to the treatment already described, to take vigorous measures to prevent it from sinking altogether. For this purpose, small quanti-

ties of brandy were occasionally given in the drinks already mentioned,—a diet as nutritive as the patient could take was recommended, and a variety of medicinal tonics prescribed.

Among the tonics, the principal reliance was upon the *Cinchona Officinalis*, which was commonly given in the form of a compound decoction, as follows, viz.

R. Cinchon. Officinalis. ʒi.

Citri Aurant. Cort. ʒss.

Aristol. Serpent. ʒii.

A quart of boiling water was poured upon about one third of this quantity; and it was then boiled in a covered vessel ten minutes. After being removed from the fire, as soon as it was sufficiently cooled, a little yeast to the amount of a common wine glass full, and as much simple syrup or molasses were added; when it was set by, to ferment. In five or six hours it was ready for use. The most common method of giving this decoction, was to direct the patient to drink a wine glass full every four hours, in the intervals between the times of taking the diaphoretic powders. Infusion of *Quassia* was prescribed in some instances, where the *cinchona* did not agree well with the stomach, as were some other tonics.

When symptoms of faintness or torpor appeared, at whatever period of the disease it might be,



the diffusible stimuli were diligently administered. The aromatic spirits and volatile oils in all their variety, were given in small doses frequently repeated. A mixture of spirit of peppermint, compound spirit of lavender, and camphorated tincture of opium, was more generally useful, than perhaps any other preparation of this class. But however efficacious they might be when first exhibited, it soon became necessary to vary them. For the stomach becoming accustomed to them, they lost much of their good effects ; and others, even if less powerful, were found more effectual in rousing the system to action. This was more especially the case, during the vomiting stage of the disease.

The vomiting was a symptom, which, when it was severe, it required great diligence and care to remove. Only very small quantities of any substance could be received into the stomach at a time, with any chance of its being retained ; and only such articles as were stimulating in their nature. The diaphoretic powders were now, either altogether omitted, or only given in smaller doses, and at longer intervals. The fermented decoction was sometimes retained on the stomach as well as any thing else, in which case it was continued ; at others, it was necessary to omit it, because it was rejected by vomiting. The cordial mixture already mentioned, frequently re-

strained the vomiting for a short time. When that failed, various other volatile oils were tried in succession, each seeming to accomplish the purpose for a little while. But in some very bad cases, each in its turn was rejected, as soon as the stomach had become accustomed to its action. The volatile oils of lavender, rosemary, cinnamon, cloves, and turpentine were occasionally given, either singly, or combined with tincture of opium. A small quantity was dropped into any of the drinks which the patient was to take, and given by single tea-spoonfuls, taking care to have it as hot as could be borne.

Indeed this was a caution which it was always indispensable to observe, in this state of the disease. Whatever was given, it was necessary that it should be made as hot as could be taken without burning the mouth, and this in extremely small quantities. In this manner all the drink that was to quench the thirst of the patient, and all the food that was to nourish him, as well as all his medicines, were dealt out to him by tea-spoonfuls. Even after the vomiting had been considerably subdued, if the stomach was suffered to get over-loaded, it commenced again, and was only conquered by renewing the same cautious management.

Besides the remedies already mentioned as applicable to this state of the disease, a variety of

other substances not strictly medicinal were frequently given. Brandy, sparingly diluted with some aromatic infusion, was often very efficacious, in checking the vomiting, as well as in removing the sensation of extreme faintness, by which it was attended. The small quantities of food which the patient could take, were made as nourishing and as easy of digestion as possible, and were as highly seasoned with any spices which he might choose, as they could be made, without impairing his relish for them. A simple chicken soup was by most persons preferred to any other food, and was in general retained best upon the stomach. Some few, either from a general dislike to soup, or from some disgust to it excited during the sickness, preferred other articles of nourishment.

Frictions with oil upon the region of the stomach, were often recommended with good effect at this time. Fomentations, applied as hot as they could be borne, and sometimes blisters to the same part, were in some cases of great service.

The difficulty of subduing the vomiting was very much increased by the constant, and sometimes almost ravenous thirst for cold water ; a thirst which it was injurious and even dangerous to gratify. Even a very small quantity of water, taken at this period of the disease invariably ren-

dered the vomiting more violent, and thus increased the faintness and thirst, for which it was craved. Yet it was many times, difficult to convince the patient or his attendants that this would be the effect, until he had ascertained its certainty by experience ; especially as in other stages of the disease, water was sometimes allowed, not only with impunity, but with obvious advantage. Hence they were often inclined to judge for themselves, that it would be of service in their own case. The relapses from this cause were not commonly very serious, because the quantity at first taken was generally small. But they were sometimes more alarming. In one instance, in particular, an indulgence of this kind had well nigh cost a patient her life. Having heard an instance spoken of, in which water had been taken with advantage, she determined at whatever hazard, to try the experiment upon herself. Her nurse gratified her, and she drank pretty freely. Her vomiting, which had ceased for several hours, immediately returned, with great violence and obstinacy ; she complained of great coldness and faintness at the stomach, with a feeling of extreme depression and sinking ; and pain in the head. Her countenance became more bloated. In short, she was every way much worse than before ; and was not restored to her former state until several days after.



By a diligent and careful application of the remedies above mentioned, the vomiting was always sooner or later subdued. In most cases, where we were aided by the careful management of the attendants, only a few of them, and those not the most powerful, were necessary. In some obstinate cases, the first effectual relief seemed to be given, by gratifying the patient in an indulgence of his appetite for some particular article, either of food or drink. Much caution was requisite in this indulgence; but it was sometimes permitted with success. The articles desired were various, and often had no apparent suitableness to the situation of the patient. That which was most frequently and most ardently craved, was cider; and it was more generally received without injury than any other.

As soon as the vomiting was sufficiently subdued, it was of great importance that the strength of the patient should be diligently supported. The facility with which the coma, that in most cases was soon inclined to succeed, was prevented or removed, depended in a very great degree, upon the diligence with which remedies were applied immediately after the vomiting ceased. The patient was already considerably exhausted by the vomiting, and by the small quantity of nutriment which had been received in consequence of it. This exhaustion was to be removed, by

every means that could be adopted, without renewing the symptom which had been one of its principal causes. For this purpose, more brandy was ordered to be given than before ; the fermented decoction of cinchona was given in pretty large quantities, proportioned to the age of the patient ; and soup, or whatever other article of diet was preferred, was given very freely. At the same time, the diaphoretic powders were generally renewed, though in smaller doses than at first. Strict injunctions were given, that the patient should not be suffered to sleep more than fifteen minutes at a time, without being waked sufficiently to take something.

As the coma came on, tincture of opium with some of the strongest of the volatile oils, such as peppermint or lavender, was given in small doses, frequently repeated. Yeast and brandy were also given together at this time ; and if the coma continued to increase, carbonate of ammonia was added to the diaphoretic powders, or else dissolved in some liquid, and administered by itself. At the same time, or rather at the commencement of the coma, blisters were applied to the back of the neck ; and if it had not already been done, earlier in the disease, stimulating applications were made to the feet. Cold water, or vinegar and water, and sometimes ice, were applied to the forehead and temples ; and in some cases to

the whole head. The trunk and extremities were diligently rubbed with vinegar, or with a solution of cantharides, taking particular care that the cold air should not be suffered to come in contact with the body. If these measures were not speedily efficacious, enemata composed of yeast, brandy, and tincture of opium, were thrown up; and the quantity of these articles given by mouth was rapidly and largely increased. Indeed the only circumstance by which the exhibition of these articles could be regulated, was the effect which they produced. No quantity was considered to be large enough, until the coma began to be subdued. When that remitted, these medicines were given more sparingly, and with greater caution. This effect was uniformly produced by this course of remedies, unless the previous state of exhaustion had been extreme, or some unusual circumstance prevented the requisite quantity from being given.

After the coma had disappeared, it was necessary to continue many of the medicines, which had been given in the preceding stages; but in doses somewhat diminished, according to the circumstances of the case. The diaphoretic powders were generally ordered to be given at first every four hours; then every six hours, and as the cure advanced only twice a day, until the skin performed its functions without their assist-

ance, when they were discontinued altogether. A small dose of camphorated tincture of opium was generally prescribed, to be taken at bed-time every night, from the first, and was continued through the greater part of the convalescence. The tonics were continued in greater or less quantity, according as they seemed to be needed. The fermented decoction in most cases still held its place, as the most grateful, as well as the most suitable article of this class, until the cure was nearly completed, when the compound tincture of cinchona was frequently substituted for it. Brandy was given in less quantities as the strength was recovered; so as generally to be left off altogether, or nearly so, by the time my visits were discontinued.

Soup, or such other liquid food as the patient preferred, continued to be the principal article of diet, until the appetite was so far restored as to produce a desire for solid food. Beef steaks, or such other fresh meat as the season and market afforded, were then allowed. At first the meat was masticated, and only its juices swallowed; afterwards the whole was eaten freely.

The thirst was not urgent at this period of the disease, unless occasioned by a relapse. There was, however, a pretty general and strong desire for cider, which could not easily be removed, ex-



cept by its gratification. This was the case with many persons, who had not been much accustomed to drinking it in health, and with some even, to whom it had been rather disagreeable.

It sometimes happened, after the cure had gone on perfectly well for several days, that the patient suddenly lost all relish for food of any kind, and rather loathed it, without any considerable increase of the febrile symptoms, except, perhaps, some degree of restlessness and anxiety. In this case, an emetic effectually removed the unfavorable symptoms, and restored the patient to his state of progressive recovery. The kind of emetic which I preferred for this purpose, was the powdered ipecacuanha. If not sufficiently active of itself to evacuate the stomach effectually, I sometimes added a small quantity of sulphate of zinc. The nausea which continues after the operation of tartrate of antimony, and the great debility produced by it, were a serious objection to prescribing it at this period of the disease.

During the whole progress of the treatment, costiveness was carefully guarded against, by administering either mild cathartics, or emollient injections, as often as they were needed. An enema was generally preferred, when the patient was quite feeble, provided I could depend upon its being effectually administered. But in this

I was often disappointed ; for although the operation is a simple one, I found but few nurses, who were accustomed to performing it. Injections of a different kind, and for a different purpose, were not unfrequently thrown up, when the patient was low, and not able to take a sufficient quantity of nutriment and medicine by mouth. They were then composed of soup without seasoning, a small quantity of brandy, and tincture of opium sufficient to ensure their retention. These were often administered with a very excellent effect, where the patient had become much reduced by a want of support and nourishment.

Whenever pain or numbness in the limbs appeared, they were generally very readily removed by frictions with oil. The same remedy applied to the bowels was often efficacious, in removing the pain and flatulence which not unfrequently occurred in the bowels, previously to the operation of a cathartic, and in relieving the partial retentions of urine which were sometimes troublesome.

Such are the general outlines of the practice, which I adopted for the removal of this formidable disease. The particular details will best appear, by a reference to the individual cases reported in the next chapter. Before we proceed to

them, however, it will be proper to make a few remarks upon some of the principal remedies, and the effects of their exhibition.

#### VENESECTION.

I mention venesection among the remedies for this disease, although I did not employ it myself, nor see any case in which it had been employed; because it has generally been considered a powerful remedy, and because it gives me an opportunity to say that I have had no experience of its efficacy. I was deterred from practising it, by the great tendency to debility which I witnessed in the disease, as well as by the reports which I had heard of the disastrous effects, which were said to have followed its use in other places. The foundation of these reports, or the accuracy with which they were related, it does not come within my plan to examine here.

#### BLISTERING.

Blisters were remedies of very powerful efficacy in a variety of cases. In the first place, at the commencement of the disease, when there were symptoms of a pneumonic affection, pain in the chest, cough, and difficulty of breathing, a single blister applied as nearly as possible over the seat of the pain, was almost invariably effec-

tual in relieving them. In obstinate vomitings, where other means had failed, a blister applied on the left epigastrium was a very powerful auxiliary. I also generally applied blisters to the back part of the neck, and upper part of the arms, in cases of deep and obstinate coma; but I am less satisfied of their efficacy in these cases, than in any other in which I have ever prescribed them. I have often had opportunity to witness their effects, not only during the Epidemic, but in many other cases of coma in fevers, while the same constitution of diseases prevailed; and have been led more and more to doubt their being of service, until I have altogether ceased to prescribe them for this symptom.

There is still one other case in which blisters were applied with advantage in the Epidemic fever. Where the debility was very great, and a sort of languor and exhaustion of the vital powers seemed to pervade the whole system, small blisters were frequently applied to the wrists and ancles with very good effect. For the last two or three years, when recommending blisters, for this purpose, I have usually directed the vesicating plaster to be removed, after the skin has become sensible to its action, before the blister is fully formed. The principal benefit to be derived from the application, in these cases, consisting in the excitement produced by the



action of the plaster, and not in the subsequent discharge, we are able by this means to take advantage of the excitement, and at the same time to avoid in a great measure, the inconvenience and pain which commonly follow. Another advantage is, that by avoiding the disagreeable ulcers which full blisters often produce, we are able to repeat the application at pleasure, with very little suffering or inconvenience on the part of the patient. It was not until after the Epidemic had disappeared, that I adopted this practice. But as it was in cases perfectly analagous, it seems not unsuitable to mention it in this place.

#### FOMENTATIONS.

Fomentations are remedies somewhat similar in their nature and mode of action to blisters, though milder, and of course less efficient. For the removal of various local pains, particularly in the bowels, and sometimes in the back, I often found them very serviceable. In obstinate vomitings, I invariably tried their efficacy, before resorting to blistering, and not unfrequently with success. In slight affections of the chest too, they were sometimes applied with benefit. The more usual mode of applying them, was to fold the leaves of some of the common bitter herbs, such as wormwood or tanzy, in flannel,

wet it in hot vinegar, or common spirit, and lay it upon the part affected. I shall not stop to inquire, whether any benefit could be derived from any medicinal virtues of the plants made use of. Certain I am, that a fomentation of this kind was more effectual, than one made by simply wetting folds of flannel in vinegar or spirit, and applied in the same manner.

#### FRICTIONS.

Friction of the skin is another external application, which was often extremely useful. In all cases of severe coma, this was resorted to in aid of the more important internal remedies. In these cases, the friction was generally performed with flannel dipped in vinegar or spirit, and if there was much appearance of torpor, in a solution of cantharides. For the relief of local pains, and numbness in the limbs, the friction was best performed with the naked hand, moistened with oil. Whether it was owing to any virtues of the oil itself, or that the friction was more perfectly executed, oily frictions were more effectual in relieving these kinds of pain, than those which were more stimulating.

#### EMETICS.

I have already observed, that when the fever had been preceded by symptoms of a derange-

ment of the functions of the stomach, an emetic was particularly serviceable. In these cases, I generally gave the powdered ipecacuanha mixed with a watery solution of tartrate of antimony, in divided doses. In a few instances of this kind, the progress of the disease was nearly or quite arrested by the operation of the emetic. In other cases, however, where the stomach had not been previously disordered, no such benefit resulted from it; but on the contrary, the debility was increased, and sometimes a troublesome and obstinate vomiting was occasioned by it.

At a later period of the disease, when emetics were given in consequence of loss of appetite, loathing of food, &c. it was important that their operation should be speedy, and with as little subsequent nausea as possible. For this purpose, I gave a full dose of the powder of ipecacuanha in water, taking care to have no more liquid, than was necessary to facilitate the swallowing of the medicine. If this did not evacuate the stomach in a short time, an additional quantity was given; or more frequently a small portion of sulphate of zinc was administered in its stead. In a few instances, where the stomach seemed unusually torpid, I gave sulphate of zinc with the ipecacuanha at first, and more rarely by itself; and once or twice I made trial of sulphate of copper, to produce vomiting. The operation of the sul-

phate of copper was so violent and unpleasant, that I shall hardly be disposed to repeat it, unless it were to become a matter of absolute necessity.

The sulphate of zinc, though much less violent, is also an extremely unpleasant remedy; and it is only where it is very important to excite vomiting without continued nausea, and where ipecacuanha fails of doing it, that I should feel inclined to recommend it. I have once seen a pretty violent inflammation of the stomach produced by its action; and although in this case I am fully persuaded that the life of the patient was saved by administering it, yet the effects were sufficiently troublesome, to teach me much caution in prescribing it in future.

#### CATHARTICS.

The only object for which I ever prescribed cathartics in the Epidemic, was to obviate costiveness. For this purpose, those were always preferred which would be the least likely to give pain in their operation, and would produce the least prostration of strength. A more frequent prescription than any other of this kind, was a pill composed of equal parts of aloes, rhubarb, and soap. Castor oil, was often given, especially to children, and powdered rhubarb not unfrequently. Sometimes carbonate of potash was



mixed with the rhubarb, and an acid added ; and the whole given in a state of effervescence. When the debility was great, emollient injections were always preferred to cathartics administered by mouth ; and if the discharge produced by the enema alone was not sufficient, a small dose of some mild cathartic was given, and its operation aided by the exhibition of an enema.

In some of these ways, if not by the spontaneous action of the organs concerned, a discharge was generally procured every day, or every second day ; although in some few instances a costiveness was suffered to continue longer, without any manifest inconvenience. A very considerable degree of exhaustion, and prostration of strength frequently followed the operation of the mildest cathartic or enema, and was sometimes produced even by a spontaneous and apparently healthy discharge. This was however in general easily removed, by seasonably administering cordials and tonics.

#### DIAPHORETICS.

I prescribed a considerable variety of diaphoretics, at different times during the prevalence of the Epidemic, but preferred such as produced their effect when administered in small quantities, and at the same time, had little tendency to

create a nausea, or to increase the debility and exhaustion of the patient. I sometimes gave the powder of ipecacuanha and opium, of the pharmacopœia ; but the bulk occasioned by so large a quantity of sulphate of potash, rendered it difficult to administer it in sufficient doses, without its oppressing the stomach ; especially where there was a strong tendency to vomiting. On this account, I occasionally prepared it with a much smaller proportion of the sulphate. This preparation was preferable to the other ; but was not equal to one in which camphor was conjoined with ipecacuanha and opium, in the proportion of one part of opium, to two of camphor, and three of ipecacuanha, triturated together. This powder, given in as large doses as the patient could bear without nausea, rarely failed of exciting perspiration in a short time ; and by repeating it once in four hours, in smaller doses, proportioned to the exigencies of the case, it was generally easy to regulate the evacuation almost at pleasure.

Being at one time, for several days, destitute of ipecacuanha, I substituted the antimonial powder, and in a few instances tartrite of antimony, for it in the compound powder. Neither of these articles answered the purpose so well as ipecacuanha ; but the latter was the most objectionable of the two. They occasioned too much nausea, and increased the sensation of faintness at the

stomach, and were more liable to be rejected by vomiting. The same objections were applicable to the antimonial powder given alone, besides that it was less certain to produce the beneficial effects, for which diaphoretics were prescribed.

It was upon the compound powder of ipecacuanha, opium, and camphor, therefore, that I principally relied, to produce the diaphoresis, which was regarded as the first step towards the cure of the fever under consideration. This was generally given, except at the commencement of some very severe cases, in doses, which were repeated every four hours, until the cure was so far advanced that the skin began to resume its healthy functions, when it was given less frequently, and was gradually discontinued. For children, I very commonly added half a grain or a grain of submuriate of mercury to each dose of the powder. The same thing was done in a few instances for adults, especially in cases of a pneumonic affection, but it was by no means a general practice. Finding the fever to be manageable by other means, I wished to avoid the inconvenience and risk of a salivation, so long as it did not appear to be necessary.

These means for inducing perspiration were aided, in all severe cases at least, by applications made to the surface of the body. The patient

commonly, though not universally, bathed his feet in hot water before going to bed. He was then covered with as many clothes as he could comfortably support; and generally, a sort of vapour bath was produced in his bed. Bricks were heated and rolled up in a damp cloth, or brands from the fire, or billets of porous wood boiled in water, were prepared in the same manner, and placed around him in the bed. Bottles of hot water were sometimes used for the same purpose. These applications were frequently made by the attendants, before the arrival of a physician. But except in very slight cases, the relief produced by them was never very complete, although a sufficiently profuse perspiration was often excited.

The appearance of a diaphoresis was very much facilitated by the warm aromatic drinks which were taken, to remove the thirst. The quantity of these was sometimes very great. In the early part of the disease when the thirst was the most urgent, I generally suffered the patient to regulate the quantity, by his own feelings. He was never, by my directions, urged to drink more, on account of the diaphoresis, than his thirst required. I make this remark because it seems to have been supposed by some, that the object was to fill the stomach with as many hot and stimulating liquids, as could be forced into it.



## STIMULANTS.

CINCHONA. Tonics, narcotics, and cordials were all of them, used at some part of the sickness, and not very rarely through the whole course of it. Of the tonics, the most generally and constantly useful, was the cinchona ; especially when it was combined with orange peel and serpentaria in the fermented decoction already described, and in the compound tincture. In a few instances, I gave a simple infusion or decoction of cinchona, but it was only when for some particular reason, the compound could not be administered.

Whenever a tonic of any kind was indicated, at whatever period of the disease, it very rarely happened that the fermented decoction could not be given with manifest advantage. It was sometimes, but not often, rejected during the vomiting stage, when a more simple bitter, such as quassia, would stay upon the stomach. In a few cases also, it was necessary to omit it on account of an idiosyncrasy of the constitution, which prohibited the exhibition of cinchona in any form. Yet this decoction was often received by persons who could not take that tonic in any other preparation. It was more grateful to the palate of most persons, was less liable to occasion strictures of the chest, and had less tendency to produce or increase a febrile excitement.

in the system, than any other composition of the kind, which I have ever seen administered.

If there were any considerable symptoms of reaction in the system ; that is, if the pulse was full, or if there were perfect chills, succeeded by heat ; and especially, if there were symptoms of an affection of the lungs, the decoction of cinchona was not given until these symptoms were, at least in some degree, removed by other remedies. In other cases, it was prescribed at the first visit, and administered as soon as it could be prepared ; and in all cases it was administered as soon as the second, or at the latest, the third day. The dose prescribed, of course varied according to the circumstances of the case ; but was commonly for adults about the amount of a wine glass full, repeated every four hours. During the vomiting, like every thing else, it was given in much smaller quantities at a time, and oftener repeated, and sometimes was discontinued. After the vomiting had subsided, however, as large quantities were given as before.

This decoction was not unfrequently continued, until the patient was so far recovered as to leave off the use of tonics altogether. More commonly, however, especially in severe cases, as soon as the patient began to have a relish for solid food, the compound tincture of cinchona

was preferred to the decoction, and took its place in the prescription. The tincture was also occasionally given earlier in the disease. Sometimes both preparations were given at the same time, at intermediate hours; and sometimes they were prescribed alternately, on different days, as the patient became tired of one or the other. The more common dose of the tincture was the usual one of a drachm. It was generally given in a little brandy and water, either heated or not, according to the feelings and wishes of the patient. If he was feeble and exhausted, the effect was more salutary as well as more pleasant, to have it as hot as he could well drink it; at other times it was given cold.

**GENTIAN.**—Whenever any peculiar idiosyncrasy of constitution rendered it difficult or impossible to give the tincture of cinchona, the compound tincture of gentian was substituted for it. A fermented decoction similar to that of cinchona, was also some few times prepared and given in these cases. It was a useful tonic, but being less powerful and less certain in its effects than cinchona, it was only given when that could not be. During the convalescence, the tincture of rhubarb and gentian was often prescribed, to obviate costiveness; and with very good effect.

**QUASSIA.**—Quassia was extensively useful as a tonic in this disease. In almost all cases in which from whatever cause, cinchona could not be administered, the infusion of quassia was given as a substitute. In the early part of the disease, when the cinchona would be likely to produce too much excitement, and yet it was desirable to give something to prevent the strength of the patient from sinking, this was a remedy exactly suited to the wants of the case. In some cases of coughs, which forbad the use of more powerful tonics, it was also extremely useful. During the vomiting stage of the fever, quassia often remained on the stomach, when almost every thing else was rejected ; and was therefore very frequently prescribed at that time. Besides these several cases, it was often given at intermediate hours, during the exhibition of other tonics, especially when the patient was very low ; and aided very much in producing the effect desired. The quantity prescribed was not very precisely limited. I commonly ordered a spoonful of a strong infusion to be given every hour.

A variety of other vegetable tonics was occasionally prescribed ; but their effects were not so peculiar as to require a particular notice. Those of the serpentaria and orange peel have been sufficiently described, when speaking of the compounds into which they always entered



whenever they were prescribed. Of the others, chamomile flowers, cascarilla, and colomba were more frequently ordered than any others. They generally fulfilled the intention for which they were prescribed, with about the same constancy as in other diseases.

**ACIDS.**—The aromatic sulphuric acid was frequently given, especially during the convalescence. It was generally combined with the compound tincture of cinchona, and seemed sometimes to prevent the tincture from disagreeing with the constitution. In a few low cases, the muriatic acid was given in small quantities, with other tonics.

**METALLIC TONICS.**—The only metallic tonics of which I made any use during the Epidemic, were arsenic and iron. The arseniate of potass was the only preparation of the former ever given. In two or three of the first cases, it was given in doses of three or four drops, mixed with an equal quantity of tincture of opium, repeated every four hours, and apparently with very good effect. But, having lost a patient early in the season, in consequence of the carelessness of a nurse, who mistook the arseniate for something else, and gave a large quantity, I abandoned its use altogether; not so much from a dislike to the remedy itself, as from a want of confidence in the care with which it would be administered.

Iron, whenever it was prescribed, was given with myrrh, as in Griffith's Myrrh Mixture, or his Myrrh Pills, prepared according to the formulas in Thatcher's Dispensatory. It was rarely, if ever given early in the disease. But after the cure had made some progress, and especially in cases of protracted convalescence, its effects were often very salutary. The quantity prescribed was regulated by the circumstances of the disease, and of course varied very much in different cases.

WINE.—Wine in its simple state was made use of, only in a few instances, and then generally towards the close of the convalescence. It very rarely agreed well with the stomach, and was not commonly grateful to the taste. Sometimes it occasioned vomiting, and oftener, acidity and oppression. Wine whey was much more frequently taken with relish, though rather as an article of diet than of medicine.

BRANDY.—This article was very frequently given; and sometimes in pretty large quantities. Much reliance was placed upon its good effects, in concurrence with other tonics, whenever the strength was very low, and particularly in cases of great faintness and a sensation of sinking. It was given at irregular intervals, and in very different quantities, according to the situation of the patient. The proper time for administering it, was gene-

rally not until a perspiration had commenced, and the more violent symptoms of the access had begun to subside. In some few cases, however, where the prostration of strength, and the apparent depression of the vital powers, were extreme, I did not wait until these changes had taken place. Indeed it not unfrequently happened, in ordinary cases, that brandy was given at the commencement of the disease, before the arrival of a physician. But it was not prescribed in such cases, and when taken, was many times rather injurious than beneficial in its effects.

It is worthy of remark that those who had been accustomed to a free use of spiritous liquors when in health, generally took them with much less relish, when sick with the fever, than others whose habits were more temperate.

The brandy was either mixed with aromatic drinks, or was diluted with water, as the patient preferred. The degree of dilution was also principally regulated by the feelings and choice of the sick. In most instances it was more pleasant, as well as more useful, when given as hot as could easily be borne. This was particularly the case, when the sensation of faintness in the region of the stomach was urgent; and still more so, when the object was to prevent vomiting. In a few cases of obstinate vomiting, a few tea-spoon-

fuls of brandy given at short intervals, very strong, and as hot as possible, were more successful in arresting this troublesome symptom than any thing else. It was a few times given pure, for this purpose, though in very small quantities; and even rendered more active by the addition of cinnamon or some other aromatic. This, however, was never continued more than for a very short period, at any one time. When its use was continued longer, it was freely diluted.

In coma, brandy was sometimes given in large quantities, conjoined with tincture of opium. In these and some other cases, it was not unfrequently mixed with yeast, with good effect. When there was a difficulty of swallowing a sufficient quantity, this mixture was given in an enema, taking care to add tincture of opium enough to ensure its retention. Alcohol in other forms was occasionally given, although rarely, and only when some peculiar circumstance rendered it impossible for the brandy to be taken.

**OPIATES.**—Opium in substance was given only in the compound diaphoretic powders. The simple tincture was given, whenever it was indicated for the purpose of checking diarrhœa. It was also frequently prescribed with some of the volatile oils, to remove a disposition to vomiting and faintness. But it was by far the most liberally used



in cases of coma. Whatever may be the explanation of its mode of action, it is certain that this was a powerful agent in removing the deepest comas, which were not absolutely irrecoverable. For this purpose it was sometimes given in large quantities, both by mouth, and by injections. To allay irritation and promote rest, the camphorated tincture of opium was frequently given at bed-time, and occasionally at other times, but always in moderate doses. It was also frequently mixed with the volatile oils, in preference to the simple tincture, to excite the stomach.

**CORDIALS.**—The more diffusible stimuli were resorted to, whenever the prostration of strength, or the torpor of the system seemed to require a speedy excitement. It has already been observed that the volatile oils were extensively used for this purpose. The carbonate of ammonia, either in powder or in a liquid state, was sometimes prescribed with the same intention; besides a variety of other articles already mentioned.

**DIET.**—It has already been remarked, that the diet was principally confined to the lighter articles of food. Simple soups made pretty strong, but with the oily parts separated, and seasoned to the taste of the patient, were preferred. When these disagreed, or could not readily and constantly be obtained, gruel, arrow root, sago, panada, and

other light vegetable articles, were substituted for them. After the desire for solid food returned, which was generally rather early in the convalescence, a much greater variety was permitted in the diet. The appetite for solid food in many cases commenced by an urgent desire for some particular article ; and this often not apparently very well suited to the condition of the patient. Unless, however, it would be manifestly injurious, the desire was generally satisfied. The food desired was given, at first with much caution, and very rarely produced any injury.

Of the more common drinks, decoction of aromatic vegetables, brandy, wine whey, &c. enough has already been said. Coffee was very generally taken with much relish, and without any unpleasant effect. Cold water was allowed at the beginning of the disease, if the patient wished it ; an occurrence which sometimes, though rarely happened. During the vomiting it was always injurious, and was therefore prohibited, although the thirst for it was sometimes very urgent. During the convalescence it was not often desired, and was not denied, unless some peculiar circumstance forbad its use. I saw one or two cases of a very singular raging thirst for cold water, for which I hardly know how to account, in which a very large quantity was taken without any disadvantage. A case of this kind with its

attending circumstances, will be given in the next chapter.

During the convalescence, and sometimes earlier, cider was more generally desired than any other article of drink. It was very freely allowed, and produced no inconvenience, except that in a few instances, it occasioned a slight diarrhœa. When it could be obtained, bottled cider was always preferred. But as this was not always at hand, good draught cider was often taken.

#### REGIMEN.

The object which was principally kept in view in managing the regimen, was to render the patient as comfortable as possible, and at the same time to secure a constant, but mild and equable perspiration. The temperature of the room, the quantity of bed-clothes, &c. were determined by this rule. It was considered important, that the temperature of the room should be as uniform as possible. The degree of warmth which is the most agreeable to a healthy person was nearly preserved. When it could conveniently be done, the patient lay in flannel sheets, and wore a bedgown of the same material. Flannel was preferred to linen or cotton, as giving less exposure to chills from changes of temperature, or from the moisture produced by perspiration.

The bed was generally made every day. If, as was often the case, the patient was too feeble to sit up while this was done, he was lifted on to another bed ; and if his circumstances admitted of it, the bed-clothes, as well as his linen, were changed every day, or every second day. Considerable care was taken to have the room well ventilated. If it was small, a window was kept open nearly the whole time, taking care of course not to have the fresh air blow directly upon the patient. To effect this, where the window did not let down from the top, several folds of thick cloth were pinned closely at the bottom upon the casement of the window which was open, so as to give the air a direction upwards.

The patient was allowed only very short periods of sleep, without being waked. The frequency with which it was necessary to give medicine or nourishment, in many cases caused his being waked sufficiently often. If this did not require it, it was nevertheless important that he should not sleep more than from fifteen to thirty minutes at a time, according to the severity of the case, and especially according to the disposition to coma. When suffered to sleep too long, he was waked with more difficulty, and was evidently enfeebled and exhausted, rather than refreshed by it.



A considerable degree of inconvenience was suffered from the want of such medicines as were frequently desirable. I was often under the necessity of prescribing differently from what I wished to do, because the article which I preferred could not be obtained. There was at that time no apothecary in town ; and in consequence of the difficulty of obtaining medicine from a distance, which the war with Great Britain occasioned, the shops in the vicinity were much more imperfectly supplied than usual. Some of the inconveniences occasioned by this circumstance will appear in the following chapter ; others are not noticed, because they did not appear materially to affect the result of the different cases.

## CHAPTER. IV.

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### CASES OF THE EPIDEMIC.

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#### CASE I.

*February 11th, 1814.* A. L. is an unmarried woman, aged about 25 years. Her health has usually been good; until within a few months past, it has been less vigorous than formerly. I was first called to-day. She was seized with pain in the bowels and diarrhœa more than a week ago, but has been better since the first attack. Her diarrhœa, however, continued, and she has, of her own accord, taken a dose of sulphate of soda, by which her strength has been very much reduced. She has kept her bed for the last three or four days. She now complains of great pain in the head and extreme dizziness; constant vomiting; strength prostrate; great numbness of the extremities; skin has a puffy, œdematous feeling.

Purple spots appear occasionally on her limbs. Her pulse is so feeble and quick, that it is counted with difficulty ; tongue covered with a dark coat. She was directed to take the powder of ipecacuanha, opium and camphor, which is described in the preceding chapter, every four hours, and between the times of taking it, to drink a wine-glass-full of the fermented decoction of cinchona. Four drops of arseniate of potass, with four of tincture of opium, were ordered to be given each time in the decoction. Small quantities of brandy and of strong soup were directed to be given in the intervals.

*February 12th.* In the morning. Every symptom is worse. Only a trembling of the pulse can be perceived at the wrist. The stomach has rejected every thing she has taken. Omit the powders, and the decoction. R Lavend. Ol. Vol. gt. iv. Tinct. Opii gt. v. every hour, in a teaspoonful of warm brandy and water. This preparation gives a very grateful sensation to the stomach. Give frequently a little brandy, spiced and warmed. Apply spiritous fomentations to the region of the stomach.

Afternoon. Vomiting less urgent. Re-commence the diaphoretic powders, and decoction of cinchona, as directed yesterday.

13th. Symptoms somewhat mitigated; but the stomach still rejects the decoction of cinchona. Substitute for it, a strong infusion of quassia: of which give a table spoonful every hour, except when the powders are administered, which are to be continued as before. As she has been two days costive, an emollient enema was ordered, which produced a free stool of a natural appearance.

14th. Rather better. Continue the powders and the infusion of quassia. The enema was repeated, and with the same result as yesterday. R Tinct. Cinchon. compos. ʒi. every four hours.

15th. Still better. Continue the medicines. A moderate dose of rhubarb was ordered to obviate costiveness.

From this time her health gradually improved until in a fortnight, she was able to sit up half an hour at a time, and to eat pretty well. Substantially the same course of medicine was pursued, until she was perfectly recovered. In the course of her convalescence, she was affected with a pain, apparently rheumatic, in her left arm, which was readily removed by frictions with compound tincture of soap. Her health was better after her sickness than it had been for a few months before.



## CASE II.

*Feb. 24th.*—Mrs. S. a married woman aged about 30, of a vigorous constitution, and good general health. She complains of great pain in the head and dizziness, which have been so severe, as to confine her to her bed for the last two or three days ; sickness at the stomach ; thirst ; numbness of the limbs. Purple spots occasionally appear on the skin. Her tongue is much coated ; pulse quick, but not remarkably feeble. These symptoms have been gradually making their appearance, and increasing for a week. She was ordered the Pul. Ipecac. &c. every four hours ; at bed time to take Tinct. Opii Camph. ʒi. ; to drink warm aromatic decoctions as her thirst required, and to take soup for food.

*Feb. 25th.* Her headach and dizziness are diminished, as well as the thirst ; numbness and petechiae gone. Continue the diaphoretic powders ; and between each dose, take a wine-glass-full of the fermented decoction of cinchona. As she is costive, take a portion of powdered rhubarb. I did not see her again. She recovered in a few days.

## CASE III.

*Feb. 26th.*—J. D. a boy eleven years old, was seized suddenly yesterday morning, with violent

pain in the head and dizziness, nausea and vomiting. During the night he was in a perfect delirium. This morning the vomiting has stopped, and he is rational. He still complains of great pain and dizziness of the head; pain in the back and limbs; a slight numbness of the extremities; thirst for warm drinks; sickness, and a feeling of depression at the stomach. His skin is dry; pulse quick, and tolerably strong, and his tongue much coated. The bowels are not apparently disordered. He was ordered the powder of Ipecac. &c. every four hours, to take warm aromatic drinks; and if these should not be sufficient to produce a diaphoresis, to make use of external sudorifics. If restless at night, he is to take a full dose of camphorated tincture of opium. Nourish with good soup.

27th.—He has rested well through the night. The dizziness and pain in the head are much less severe than yesterday; vomiting nearly ceased; thirst and numbness diminished. Continue the Pul. Ipecac. &c. Take the fermented decoction of Cinchona between each powder.

28th.—Much better; every symptom relieved; has sat up more than an hour. His appetite has returned; and he complains of nothing but debility. Continue a diaphoretic powder, night and morning; and the fermented decoc-

tion, and a little brandy occasionally. I visited him no more. In nine days from this time he attended school in good health.

## CASE IV.

*Feb. 26th.*—S. C. a healthy boy six years old, was seized last night with the usual symptoms; pain in the head and dizziness; nausea; tongue coated; skin dry; pulse rather quick, but not particularly feeble. R Pul. Ipecacuan. gr. x. Submur. Hyd. gr. viii. immediately. After the operation, give Pul. Ipecac. &c. every four hours. The medicine operated favorably; and he required no more, except some rhubarb to open his bowels. In a few days he was as well as usual.

## CASE V.

*Feb. 26th.*—S. L. a sister of A. L. Case I. about eighteen. She began to be a little ill three days ago, after rinsing clothes in cold water in the open air. This exposure occasioned a suppression of the menses, which had just commenced. She was not so sick, however, as to consult me, though I was every day in the house. She now complains of pain in the head and dizziness; loss of appetite, nausea, &c.; but these symptoms are not so severe, but that she can sit up considerably. Her bowels are in good order, except that they are a

little inclined to costiveness. & Pul. Ipecac. &c. every four hours.

27th.—Worse ; headach and dizziness increased ; complains much of nausea ; vomits frequently ; skin dry the most of the time ; has some degree of numbness ; extremities have a lifeless, œdematous feeling ; costive. & Pul. Rhei gr. xxv. immediately. Continue the Pul. Ipecac. &c. every four hours ; and give a table spoonful of infusion of quassia every hour.

28th.—Pain in the head diminished ; vomiting less ; skin moist ; the rhubarb has not operated. Having no ipecacuanha, I substituted the common antimonial powder for it in the composition with opium and camphor, and ordered it to be continued as before. Continue also the infusion of quassia. & Pul. Rhei gr. xv. and in two or three hours after, administer an enema.

March 1st.—Has rested well through the night ; vomits occasionally a little mucus ; numbness mostly gone ; feels very little pain ; skin tolerably moist ; is much inclined to sleep. The enema produced a natural looking stool. Repeat it towards evening. Continue the Pul. Ipecac. &c. every four hours ; and in each interval give a wine-glass-full of the fermented decoction of cinchona. Apply a blister to the upper arm. Give



brandy and well seasoned soup freely. *Mem.*  
The nurse is negligent, and the house terribly noisy.

2*d.*—A little better, but is still very feeble; has turns of faintness; pulse fuller, and less frequent; has very little thirst; the enema last evening produced a scanty evacuation of the bowels; the skin is somewhat moist, though not constantly so; she takes soup sparingly. Her nurse frets her. Continue the Pul. Ipecac. &c. as before. R Tinct. Cinchon. Compos. 3i. every four hours. Whenever she is faint, give Spiritus Menth. pip. gt. viii. with Tinct. Opii Camph. gt. xx.

3*d.*—The symptoms are much the same, but a little better, though the amendment is not very considerable. Her menses have returned, and are sufficiently moderate. Continue the powder. Give a wine-glass-full of the fermented decoction of cinchona every four hours; and at least an equal quantity of wine, during each interval. In the decoction give every time, arseniate of potass and tincture of opium, of each four drops.

4*th.*—Appears much as yesterday; *is said* to have had a good night; pulse tolerably good; inclines to coma; bowels sufficiently open. Continue the medicines; but pursue the stimulants

more vigorously. Apply a blister to the upper part of the other arm.

5th.—Much worse; was very much worried last night by her attendants. Her pulse is low and quick; tongue black; protruded with difficulty; a black sordes collects on the teeth; extremities feel puffy. She speaks indistinctly, and is inclined to faintness. I now discovered more particularly, what I had before partly known, that she is neglected and ill treated by her nurse, who is ill-tempered, petulant and noisy. I enjoined the strictest rest and quiet. Continue the Pul. Ipecac. &c. every four hours. Give half a drachm of compound tincture of cinchona, every two hours; infusion of quassia a table spoonful every hour, brandy at least an equal quantity every hour; and peppermint with camphorated tincture of opium as before, whenever she is faint. Nourish with good soup.

6th.—Has rested considerably. Her pulse is better; tongue more natural; bowels in good order; skin moist. Continue the medicines; but do not pursue the more diffusible stimuli, quite so vigorously. At bed-time give a drachm of camphorated tincture of opium.

7th.—Has been troubled with diarrhoea in the night, accompanied by a great disturbance of the

bowels. Her pulse is lower and quicker ; tongue and mouth extremely dry and parched ; she speaks with difficulty, and almost unintelligibly ; protrudes the tongue but little, and with great difficulty ; lips and teeth collect a black sordes ; skin moist ; has turns of faintness. If the diarrhœa continues, give ten drops of tincture of opium after every stool. Continue the diaphoretic powder. Give a wine-glass-full of the fermented decoction of cinchona every two hours, and other stimulants freely.

*Evening.*—Has had no passage from the bowels since morning ; breathing laborious ; pulse pretty full, 140 in a minute. Apply a blister over the sternum. Give the decoction only half a glass in two hours. At bed time give Tinct. Opii Camph. ʒi. and whenever she is faint, give peppermint and camphorated tincture of opium as before.

*8th.*—Has again been troubled with diarrhœa in the night, though less than before ; pulse 140, less full. Continue the medicines ; but give more brandy.

*Evening.*—Much the same. Has had one discharge from the bowels to-day. Apply a blister to the calf of each leg.

9th.—No better, but grows weaker. I have at length discovered many instances of extreme bad conduct on the part of the nurse, and after much difficulty have succeeded in getting her discharged; although the new one does not seem entitled to much confidence. My patient has still some diarrhœa, pulse 140, feeble; tongue extremely parched; lips and teeth covered with a black sordes; skin continues moist; respiration difficult; partially in a delirium. Continue the medicines as before, except to substitute the compound tincture of cinchona, one drachm every two hours, for the decoction.

*Evening.*—Much the same. & Spiritus Menth. Pip. gt. viii. Tinct. Opii Camph. gt. xv. every two hours.

10th. Case almost desperate; tongue parched and black; she is unable to thrust it out of her mouth; respiration laborious; delirious; pulse low, quick and fluttering; feet and legs swelled; diarrhœa very urgent through the day, stools sometimes passed involuntarily; fœces black, and extremely fetid; great disturbance in the bowels; swallows with difficulty; refuses soup. Apply a blister over the cartilages of the lower ribs on each side. & Lavend. Ol. Vol. gt. ii. Spir. Menth. Pip. gt. vi. Tinct. Opii gt. iv. every hour. Give fifteen drops of tincture of opium after every



stool, until the diarrhoea is checked ; infusion of quassia, a spoonful every half hour ; a spoonful of brandy at least as often ; Tinct. Cinchon. Compos. occasionally, as she is able to receive it.

*Evening.*—She seems a little revived. She now takes a little soup ; swallows better. Omit the tincture of cinchona, and give brandy every twenty minutes ; other things as before.

*11th.*—Somewhat revived ; pulse better ; tongue more moist ; delirium less complete ; speaks better than she did yesterday, though still almost unintelligibly ; swelling of the bowels less, that of the feet and legs gone ; diarrhoea continues ; stools black and fetid. Continue the tincture of cinchona, and infusion of quassia, as directed yesterday. After every stool, give tincture of opium ten drops.

*Afternoon.*—Diarrhoea somewhat diminished ; stools less offensive. Give only five drops of the tincture of opium after each discharge. At bedtime give twenty-five drops of the same tincture.

I discovered to-day that the nurse had mistaken the phial containing arseniate of potass and tincture of opium (which were mixed in equal quantities) for that which contained the camphorated tincture of opium, and that for several days past,

she had generally, if not always, given the former composition when the latter had been prescribed. I had been very particular in cautioning her against such a mistake, and in warning her of the fatal consequences, that would result from it.

The two phials were so dissimilar in their appearance as to be readily distinguished from each other ; but she seems to have transposed them in her mind, so as to mistake the one which she was to avoid. When the nurses were changed, the first repeated my cautions to the new one, but appears to have applied them to the wrong phial. I say this *appears* to have been the case, for there is so much falsehood and contradiction between them, that it is difficult to ascertain the truth. The arseniate of potass has not been prescribed for a week past, and had so passed out of my mind, that it did not occur to me, that it could be the cause of the bad symptoms, which I have detailed in the patient, until, on looking over the medicine to-day, I found that it was gone. As soon as I discovered what had been done, I ordered as much carbonate of soda to be put into all her drinks, as they would bear without rendering them very nauseous, and continued other things as before.

12th.—Seems better ; has slept considerably last night ; her delirium is less ; pulse one hun-

dred and thirty, and fuller ; tongue and mouth more moist and natural ; the tongue is still protruded with difficulty ; skin moist ; respiration still laborious ; coughs considerably, and expectorates with ease, so far as to raise the matter into her mouth, but cannot spit it out. It is wiped out with a cloth by the nurse. The swelling of her bowels is gone ; diarrhœa moderated ; stools more natural in their appearance. She still has turns of faintness. Continue the tonics as before. At bed-time give a drachm of camphorated tincture of opium ; and whenever she is faint, give fifteen drops of the same tincture with eight of spirit of peppermint. She is desirous of cider, which is to be freely allowed her. Continue the soda.

*13th. Morning.*—Appears considerably better ; has rested pretty well ; pulse one hundred and thirty, pretty strong and full ; countenance more natural ; breathes more easily ; delirium less ; speaks better ; swallows more readily. Continue the medicines.

*Evening.*—The house has been very noisy through the day, and the patient is worse. Her pulse is quicker and smaller. She is much deranged ; unwilling to lie in bed ; talks much, and incoherently of children jumping in the room ; is frequently faint ; and has turns of trembling.

Her tongue and skin are more dry ; respiration very laborious ; diarrhœa less than it was yesterday. Continue the quassia, brandy and peppermint as before directed.  $\mathcal{R}$  Pul. Ipecac. &c. every four hours ; the fermented decoction of cinchona, half a wine-glass-full every two hours ; Tinct. Opii Cam.  $\mathfrak{z}$ i. at bed-time, to be repeated in two hours, if she continues restless.

14th.—The first part of the last night, she was very turbulent ; but towards morning became more quiet, and slept considerably. She is now much as she was yesterday morning ; takes her medicine and soup well ; she asked for a bit of dry biscuit, which was given her, and she ate a little of it. The diarrhœa is not troublesome ; trembling continues. Continue the medicines as before. If her delirium should increase during the day, give her a drachm of the camphorated tincture of opium.

*Evening.*—She has had one quite restless turn, but it did not continue long. The camphorated tincture was given as directed, and relieved her. She has grown tired of the fermented decoction, and takes it unwillingly. Substitute the compound tincture of cinchona, a drachm every two hours.

15th.—Last night she has slept pretty well, and to-day is better. Her tongue is considerably moist ;



countenance improves ; trembling diminished ; diarrhoea continues moderately. She still speaks with difficulty ; coughs considerably, and expectorates freely. She takes considerable cider with relish. Continue the medicines.

16th.—Has had a tolerable night ; countenance more natural ; appetite improves ; trembling less ; feeling of faintness gone ; coughs and expectorates considerably ; complains of sore throat ; bowels nearly regular. R Pul. Ipecac. &c. every six hours. Continue other medicines as before. Make an infusion of flaxseed, and give a little frequently.

17th.—Continues to improve gradually. Her tongue has a more natural appearance. She speaks distinctly, and with her usual tone of voice ; respiration easier ; expectoration copious and free ; possesses her mind more completely than for some time past ; has still a slight trembling ; diarrhoea continues slightly. Take every hour ten drops of the camphorated tincture of opium in the infusion of linseed. Continue other medicines as before.

18th.—Rested well in the night ; has had no discharge from the bowels since yesterday morning, when she passed a natural stool ; pulse one hundred and thirty, rather hard, and stronger than

lately ; tongue dry and black ; mouth dry ; thirst increased ; appetite for food improved ; trembling continues, perhaps increased ; no faintness ; skin moist ; speaks with more difficulty ; respiration rather more laborious ; cough loose ; expectoration copious and free ; had last night a paroxysm of delirium, and again this morning, but they were of short duration.

I learned to-day that she has for four or five days, had an ulcer on her right hip. It is not large, and does not in any respect appear very badly. It discharges a little, and appears sufficiently, though not remarkably sensible. I could pass the probe, in one direction about an inch under the skin. I dressed it with Emp. Resin. & Pul. Ipecac. &c. every four hours. Tinct. Cinch. Comp. ʒi. every hour ; at bed-time Tinct. Opii Comp. ʒi. and put into all her common drinks as much soda as the taste will permit. Give cider freely, and brandy according to the degree of exhaustion and debility.

19th.—Is less distressed ; tongue more moist ; expectoration continues to be free ; skin generally moist, although it was dry for a short time when I was present. The pulse was then one hundred and fifty, and she was more distressed ; respiration rather laborious ; has passed three stools since yesterday morning. A slough as

large as a nine-penny piece is separating from the ulcer on her hip. Apply to it a mixture of flour and honey. & Pul. Ipecac. &c. as before. Tinct. Cinch. Com. ʒi. every hour, unless the expectoration should be checked, or some other disagreeable symptom should be produced by it; brandy freely and liberally; at bed-time Tinct. Opii Cam. ʒi.

*Evening.*—Has been much distressed, vomited and is in some degree relieved, still, however, seems distressed; respiration laborious; speaks with difficulty; lies in a partial stupor, from which however, she is easily roused; pulse one hundred and thirty; tongue more natural in its appearance; skin moist. Omit the tincture of cinchona. & yeast and brandy, at least a table-spoonful of each mixed together every hour, unless it should oppress her; brandy besides, liberally; a strong infusion of quassia, a tea-spoonful every half hour; Lavend. Ol. Vol. gt. ii. Spir. Menth. Pip. gt. vi. Tinct. Opii gt. xii. every hour. Continue the Pul. Ipecac. &c. as before, and at bed-time give Tinct. Opii Cam. ʒi.

*20th.*—Lies in a stupor, from which nothing will rouse her. Aqua Ammoniae was given her for this purpose, but without any perceptible effect; respiration short, slow and laborious; pulse 160; skin moist; had one discharge from the bowels in

the night, before which they were much swollen, and afterwards less. Expectoration ceased about 1 o'clock in the morning. About 10 A. M. she ceased to swallow, and about twelve expired. I earnestly sought permission to examine the body, but could not obtain it.

It may perhaps be thought, by some, that the symptoms in this case, ought at an earlier period, to have led me to suspect, that arsenic had been given. But it should be remembered that the Epidemic to which this disease belonged, assumed almost every possible variety of appearance; so that an unusual symptom was not an object of suspicion, as it would have been at any other time. The use of arsenic had been so long discontinued, that it had passed out of my mind; and as I was continually witnessing anomalous symptoms for which I could not account, in other cases of the same disease, it did not occur to me as the cause of those I observed in this. Besides I was constantly perplexed by the contradictory accounts given me by the nurse, and other members of the family. Those of the family who were the most capable of taking care of a sick person, were too ill themselves, or too much occupied by family concerns, to attend to the immediate management of the sick bed; so that the patient was left almost exclusively to the care of a nurse, in whose veracity I had very little confidence. It was therefore difficult to ascertain the real situation



of the patient, except from the observations which I could make myself during my visits; and these visits were necessarily very short, in consequence of the multiplicity of other engagements which the Epidemic occasioned. If I had been able to examine the medicines daily, as I usually did, when I had sufficient leisure, and to inquire more particularly into every circumstance of the case, I should doubtless have discovered the mistake sooner. But as it was, I saw that the nurse was petulant, noisy and negligent, and I imputed to her neglect and mismanagement, the bad symptoms which were but too apparent. This opinion was strengthened by observing some improvement in the condition of the patient, for the first day or two after the nurse was changed.

## CASE VI.

*Feb. 26th.*—Mrs. H. about forty years old, has lately been considerably exhausted by attending upon a sick child. She was violently attacked to-day with severe pain in the head and dizziness; pain in the back and limbs; occasional vomiting; thirst for warm drinks. Her pulse is quick and hard; tongue coated; skin dry. She complains of a severe, and acute pain in the thorax under the right breast, which occasions difficulty of breathing. She has been for several days subject to a cough, accompanied by a free

expectoration, both of which continue. Apply a blister, as nearly as possible, over the seat of the pain in the chest. R Pul. Ipecac. &c. every four hours; and at bed time, Tinct. Opii Cam. zi.

*27th.*—Has rested pretty well, during the night. The pain in the chest is somewhat mitigated, particularly while the body is at rest, but is still severe upon motion. Pulse quick, but feeble; vomiting rather less urgent. Continue the Pul. Ipecac. &c. and to each powder add one grain of Sub-muriate of mercury. As she is costive, give Pil. Aloes and Rhei as much as is sufficient to move the bowels. N. B. These pills are made of equal parts of aloes, rhubarb, and soap.

*28th.*—Has passed a quiet night; and every symptom is relieved. The pills produced a moderate dejection. Continue Pul. Antimon.\* &c. as she has taken the powder of Ipecac. &c. and in each interval, take a wine-glass-full of the fermented decoction of cinchona.

*March 1st.*—Has had a good night, and is better; pain in the thorax mostly gone; vomiting ceased; has no pain in the head, nor dizziness; skin moist; expectorates freely; bowels regular; likes the fermented decoction much. Continue it. R Pul. Ipecac. &c. every six hours.

\* The antimonial powder in this composition was used as a substitute for ipecacuanha, with camphor and opium.

2*d.*—Better in every respect ; bowels regular ; expectoration free ; pulse of natural frequency, but feeble ; vomiting and thirst gone ; skin natural in its appearance ; has but very little appetite for food. R Pul. Ipecac. &c. night and morning ; Tinct. Cinchon. Compos. 3i. every four or five hours.

3*d.*—Is nearly recovered ; feels pretty well, except that she is feeble ; has some appetite for food ; sleeps well ; pulse pretty good ; bowels regular ; tongue moist, coat nearly separated. Continue the Tinct. Cinchon. Compos. If at any time a paroxysm of fever should return, take a powder of Ipecac. &c.

She recovered without any further attendance. In the course of her convalescence she was affected with a pain apparently rheumatic, in her shoulder, which was speedily removed by friction with Ol. Ammoniatum.

#### CASE VII.

*Feb. 27th.*—Mr. W. a vigorous healthy man, about 30 years old. He has walked, or rather skated upon the ice, two miles to-day to attend meeting, attended two services, and returned in the same manner. He began to feel rather ill before he reached home ; and soon after, was seized

with extreme pain in the head and dizziness ; pain in the back and limbs ; rigors, succeeded by heat and thirst ; and some pain in the upper part of the thorax, nearly under the right clavicle. His tongue is dry ; skin dry, and hot to the touch ; pulse quick, full, and hard.  $\mathcal{R}$  Tart. Antim. gr. ii. to be repeated twice after intervals of fifteen minutes, unless vomiting is sooner produced. As soon as the vomiting ceases, give Tinct. Opii Cam.  $\mathfrak{z}$ i. ; and in an hour or two after, commence giving the Pul. Ipecac. &c. every four hours ; to each dose of which is added Sub-mur. Hyd. gr. i. At bed time, if he is restless, give him a drachm of camphorated tincture of opium. Nourish with soup. Apply external sudorifics, and give warm drinks, until a diaphoresis appears.

28th.—The emetic operated favorably, and gave some relief. The pain in the thorax is increased, that in the head somewhat diminished ; other symptoms much as before ; bowels regular. Apply a blister over the seat of the pain in the chest. Continue the Pul. Antimon. &c. every four hours.

March 1st.—Rested pretty well through the night. In the morning his skin was moist, and he was nearly free from pain. But I was not able to visit him so early as I had intended, and he became destitute of medicine ; in consequence of



which, his skin grew dry ; his pain in the head and dizziness returned, and became extremely severe. His tongue is coated and dry ; pulse quick, and much more feeble. He is very thirsty. R Pul. Ipecac. &c. every four hours ; in the intervals, take the fermented decoction of cinchona. Use warm aromatic drinks, as freely as the thirst requires, and apply external sudorifics.

2d.—Rested well last night, and feels better to-day ; feels more strength and less pain ; pulse more nearly natural ; skin keeps moist ; is less thirsty ; tongue coated as much as ever. Continue the medicines ; take a little brandy or wine occasionally.

3d.—Is still rather better ; rested well last night ; has very little pain ; takes soup with relish ; brandy does not suit him ; pulse good ; tongue darker ; skin continues moist ; wishes for cider, which he is allowed to take freely. Continue the medicines.

4th.—Worse. He felt very well yesterday afternoon and evening ; but had too much company, with whom he talked very freely, as well as in the night with his attendant. He slept tolerably well, most of the night ; but had several severe paroxysms of coughing. When he waked this morning, he was perfectly hoarse, and continues so much so, that he can scarcely speak, ex-

cept in a whisper. His respiration is laborious; tongue dry and black; pulse more feeble; skin moist; has a diarrhœa, which is probably occasioned by the cider, of which he has drunk very freely. Substitute wine. Take ten drops of tincture of opium after every superfluous stool. Continue the decoction of cinchona, and the Pul. Ipecac. &c.

5th.—Rested pretty well; pulse better; tongue more moist, but as black as ever; is less thirsty; feels more strength; takes soup with relish. His voice is entirely gone, so that he can only speak in a whisper. Continue the medicines, and give brandy or wine frequently.

6th.—Recovering; rested well; pulse preternaturally slow; tongue still black; skin moist. R Tinct. Cinchon. Compos. ʒi. every four hours; the Pul. Ipecac. &c. every six hours. Continue the wine and soup.

7th.—Expectorates freely; cough less troublesome; rests well; pulse slow, and tolerably full; voice still gone. Continue the medicines.

8th.—Still gaining; sleeps well; appetite for food good; pulse very slow; walked into an adjoining room this morning. Continue the medicines.

9th.—Sits up more than an hour at a time, and can walk from one room to another, several times in succession without fatigue ; tongue still coated in the middle ; is still unable to speak but in a whisper ; pulse forty in a minute, tolerably strong ; skin natural. Omit the Pul. Ipecac. &c. unless the skin at any time becomes dry. Continue the Tinct. Cinchon. Compos. frequently.

10th.—Still better ; somewhat troubled with a diarrhœa ; pulse natural. After every stool until the diarrhœa is checked, take ten drops of tincture of opium. Continue the tincture of cinchona.

11th.—Sleeps well ; ate a piece of beef steak this morning with good relish ; has sat up several hours at a time. He has not in any degree recovered his voice. Continue the tincture of cinchona. In a few days after this, his voice began to return, and he recovered perfectly well.

#### CASE VIII.

*February 27th.*—S. C. a boy four years old, about four o'clock this afternoon was suddenly seized, while at play, with violent pain in the head ; nausea and vomiting ; pain in the chest ; chills, succeeded by heat, &c. In a short time, delirium

supervened, which, however, lasted but a few hours. He is thirsty; tongue dry; skin dry; pulse quick and hard. Apply a blister to the chest. R Tart. Antimon. gr. ii. one third to be given at a time, dissolved in water, and repeated every fifteen minutes until vomiting is produced. When the vomiting is completed, give Tinct. Opii Camph. gt. xxv. In an hour or two after, commence the Pul. Ipecac. &c. with Sub-mur. Hyd. gr. i. every four hours. At bed-time if he is restless, give him thirty drops of the camphorated tincture of opium. Give warm aromatic drinks for his thirst, and apply external sudorifics until a diaphoresis is excited. Nourish with soup.

28th.—Rested a little in the night; symptoms somewhat, but not greatly relieved; a moisture begins to appear on the skin; bowels costive. R Pul. Antim. &c. with Sub-mur. Hyd. every four hours. Ol. Ricini quant. suf.

March 1st.—Rested extremely well, and is so much better as to play with his toys; sits up an hour or two at a time. Continue Pul. Ipecac. &c. night and morning; give infusion of quassia frequently. I did not visit him again. In a few days he was well.



## CASE IX.

*February 28th.*—F. S. a girl of eighteen, complains in the evening of pain in the head and dizziness; rigors, followed by heat and thirst; tongue and skin dry; pulse quick, full and hard; she is not, however, very sick, and is not much disposed to take medicine, but consents to take a compound antimonial powder at bed-time, and another in the night.

*28th.*—She has had a very restless night. Her headach and dizziness are much increased; tongue coated; thirst, for cold drinks; skin hot and dry; pulse quick and hard. She has a cough, and pain in the left side. Apply a blister over the seat of the pain in her side. Give Pul. Antimon. &c. every four hours; apply external sudorifics; allow such drinks as she prefers, but with caution; and give soup for nourishment.

Towards evening, she began to be in a slight delirium, but a diaphoresis soon after commenced and relieved her.

*March 1st.*—Slept considerably last night, and is to-day much better in every respect; was free from pain until she induced some in the head, by too much exercise; finds herself quite feeble. Continue the Pul. Ipecac. &c. and take the com-

pound tincture of cinchona. From this time, she recovered, after several partial relapses, occasioned by imprudent exertion.

## CASE X.

*March 2d.*—S. C. an infant thirteen months old, was seized about nine o'clock yesterday morning, with violent distress and vomiting. She has had no medical advice, until I was called at three o'clock this afternoon. She has been growing constantly worse since her attack. She is teething, the gums being much swollen over several teeth. Her respiration has been very laborious from the first. About eleven o'clock this morning she was attacked with convulsions, which have continued at intervals ever since. Indeed, the paroxysms of convulsions do not entirely leave her, so but that she is constantly much distressed, and insensible to surrounding objects. Her tongue is dry, and covered with a thick and very black coat; mouth dry; the skin was dry, until after the convulsions began; pulse quick, but not remarkably feeble; bowels regular. I afterwards learned that she had fallen into the fire the day preceding her attack, and burned the back part of her head, but the burn was not thought serious enough, to induce her friends to shew it to me, or to speak of it; and probably had nothing to do with her sickness.

I immediately scarified the gums, and applied a pretty large blister to the sternum. As she lay in a stupor, in the intervals of the convulsions, I first gave Ol. Lavend. gt. i. Tinct. Opii Cam. gt. v. with orders to have it frequently repeated as there might be opportunity, or occasion; and then an emetico-cathartic composed of Pul. Ipecac. gr. x. Sub-mur. Hyd. gr. viii. After the emetic operation, fifteen drops of camphorated tincture of opium were directed to be given; and in an hour, to commence with the Pul. Ipecac. &c. with Sub-mur. Hyd. every four hours, if there should be opportunity.

Only a slight emetic effect was produced by the medicine. The child, however, became apparently easier about four o'clock, and lay quietly in a comatose state until nearly nine in the evening, when the convulsions returned, and before ten, she expired.

#### CASE XI.

*March 9th.*—S. B. a girl five years old, was seized this afternoon with pain in one cheek. The pain soon left the cheek, when she complained of pain in the stomach, and great general distress. Vomiting soon gave a partial relief. She now has headach and dizziness; skin, and tongue dry:

thirst ; pulse quick, and rather hard. R Pul. Ipecac. &c. with Sub-mur. Hyd. one grain in each, every four hours ; warm aromatic drinks, and apply external sudorifics. At bed-time give Tinct. Opii Camph. 3ss.

10th.—She has had a restless night, was at times in a partial delirium. Has frequent vomitings ; stomach rejects most that she takes ; pulse feels better ; skin moist ; pain relieved ; thirst continues. Continue the Pul. Ipecac. &c. as before. In each interval, give half a wine-glass-full of the fermented decoction of cinchona. Give Spir. Menth. Pip. gt. iv. Tinct. Opii Cam. gt. x. every hour. Nourish with soup.

Evening.—Better, but still vomits considerably, though less frequently than in the morning. Try her with a cup of good coffee. Give half a drachm of the camphorated tincture of opium at bed-time.

11th.—Considerably better ; has had a good night ; pulse more nearly natural ; tongue and skin moist ; feels very little pain, though she complains of some uneasiness in her feet. Continue the medicines.

12th.—In every respect better. She sleeps quietly ; has very little pain ; her appetite for



food increases ; tongue and skin continue moist ; has no morbid thirst ; bowels regular. R Pul. Ipecac. &c. night and morning, and at any other time if the skin should become dry. Continue the decoction of cinchona. This was my last visit.

## CASE XII.

*March 14th.*—B. L. brother of A. and S. L. aged thirty-three years, is a vigorous healthy man, except that several months ago he had an attack of epilepsy ; of which, however, he has had no symptoms since. He complained a little yesterday of pain in his head, and was kept awake by it a part of the night, but was so well as to go to his work this morning. In a short time he returned, shivering with rigors, which were soon followed by heat ; extreme pain in the head and dizziness ; nausea and faintness at the stomach ; thirst. His tongue is dry ; skin dry, with a burning sensation ; pulse quick and feeble. R Pul. Ipecac. &c. every four hours ; in each interval, a glass of the fermented decoction of cinchona. When he is faint, give Spir. Ment. Pip. gt. viii. Tinct. Opii Camph. gt. xv. Take warm aromatic drinks, and apply external sudorifics.

*Afternoon.*—The pain in the head increased so as to produce a delirium for a few hours ; but

in the course of the afternoon, a free perspiration was induced, and attended by very great relief. Soon after this, a cough commenced, with a free expectoration of thick mucus. At bed-time give twenty-five drops of tincture of opium.

*15th.*—Has had a good night, and feels nearly well, except from debility. His tongue is moist, and the coat separating from its edges; skin moist; expectoration free; pulse of natural frequency, but feeble. If the skin should again become dry, take a powder of Ipecac. &c. Continue the decoction of cinchona, or substitute the compound tincture at pleasure.

*16th.*—Much better; had a good night; sits up most of the day, and has walked out into the street. Complains of a pain, which is not very severe, in the cheek, under the right eye, proceeding probably from inflammation in the antrum Highmorianum; a bloody fluid distils from the nostrils. Continue the Tinct. Cinchon. Compos. frequently, until the strength is restored.

#### CASE XIII.

*March 14th.*—M. B. an unmarried woman of about twenty-five, of good general health, has for a week past been troubled with symptoms of indi-

gestion ; and with a pain and soreness about the sternum, which has perhaps arisen from the nature of her employment, which is picking large paper in a paper-mill. This morning she was seized rather suddenly with chilliness ; great pain in the head and dizziness ; nausea, with a feeling of general distress, which she was unable to describe ; thirst. The ends of her fingers were of a livid colour, particularly about the nails. I was called in the afternoon. Her tongue was then dry, and protruded with some difficulty, skin dry ; pulse quick and feeble. It seemed to be full upon a slight touch, but yielded very much under the finger ; general distress somewhat abated. R Tart. Antim. gr. iii. Pul. Ipecac. gr. xv. one half to be taken immediately, and the remainder in twenty minutes, unless vomiting is produced in the mean time. After the operation of the emetic, take a drachm of camphorated tincture of opium, and in an hour commence with the Pul. Ipecac. &c. every four hours. In each interval, take a wine-glass-full of the fermented decoction of cinchona. Apply a blister to the sternum. At bed-time, give Tinct. Opii Camph. ʒi. Take warm aromatic drinks, and use external sudorifics, until a diaphoresis is excited.

She recovered without any farther attendance.

## CASE XIV.

*March 15th.*—Mrs. C. a married woman about thirty, generally of very vigorous health, and rather gross habit, was yesterday morning taken with pain in the head and dizziness; nausea and vomiting; chills, &c. To-day she has of her own accord taken a dose of tartrate of antimony, which distressed her considerably in the operation; and towards evening, she sent for me. Her tongue is coated and dry, and protruded with some difficulty; pulse feeble and rather quick; skin dry, and puffy; she is thirsty; her limbs are at times numb; she has turns of faintness, and a feeling of depression at the stomach. R Pul. Ipecac. &c. every four hours; in the intervals, take the fermented decoction of cinchona; at bed-time, a drachm of camphorated tincture of opium. Whenever she is faint, give Ol. Lavend. gt. iv. Tinct. Opii Camph. gt. xv. Take warm aromatic drinks, and apply external sudorifics. Nourish with soup.

*16th.*—Pain in the head diminished; pulse slower and fuller; skin moist by turns, but is not kept so; vomiting and the depression at the stomach continue; stomach rejects the decoction of cinchona. Continue the Pul. Ipecac. &c. Give a spoonful of infusion of quassia every half hour.



When she is faint, give Spir. Menth. Pip. gt. viii. Tinct. Opii Cam. gt. xv. Continue external sudorifics, and soup. Apply fomentations to the region of the stomach. Give brandy occasionally.

17th.—She was much relieved yesterday afternoon. The vomiting was subdued by giving brandy in small quantities; but that being afterwards omitted, the vomiting returned in the night, and still continues, accompanied by a violent desire to drink cold water. This morning the nurse indulged her with cold water, which she immediately vomited. Her pain in the head was very much increased, as well as her thirst, and depression at the stomach. I gave her some spirit of peppermint in a little hot brandy and water, which produced a very grateful sensation in the stomach, and relieved the feeling of depression. Her tongue is moist; skin sometimes, but not constantly so; countenance very much bloated; the skin over the whole body feels very puffy and non-elastic; pulse slow, and not remarkably feeble; bowels costive. She has a strong desire for cider; which is to be gratified. R Spir. Menth. Pip. gt. viii. Tinct. Opii Camph. gt. xv. every hour, if the faintness and vomiting continue. At night give Pil. Aloes and Rhei, and repeat it in the morning if necessary. Continue other medicines as before.

18th.—She has had a pretty good night; the vomiting has ceased; pain in the head slight. The skin was moist in the morning; but she sat up until she was very much fatigued, when the skin became dry and she was much distressed. The perspiration is, however, restored, and she is considerably relieved, but complains of distress in the region of the stomach. The pulse, when I first saw her to-day, was 84; but within an hour fell to 78, full and strong; tongue moist, but covered with a thick coat of a dark brown colour. She takes soup well. The pills have not operated upon the bowels. Administer an enema. Apply a blister to the left side, as near to the seat of the distress, of which she complains, as she will permit.\* Continue the medicines.

19th.—Rested well; feels better; countenance better; pulse 84, pretty full; tongue moist, but black; skin moist; has very little pain; numbness diminished; has a slight pain in the bowels, and diarrhoea. Discontinue the cider, or take it in smaller quantities. Apply fomentations to the bowels, and give ten drops of tincture of opium, after every superfluous discharge. Give the decoction of cinchona, and the brandy more liberally. Continue the Pul. Ipecac. &c. as before, and the camphorated tincture of opium one drachm at bed-time.

\* She would not permit a blister to be applied directly to the region of the stomach.

20th.—She has had a worse night; complains of more pain in the head. She is not attended with sufficient care. Her skin is suffered to get dry, and in consequence, she is much distressed; but is immediately relieved by exciting perspiration. She had yesterday a severe turn of distress and faintness, from a neglect of this kind. Her skin is now dry; pulse 65, feeble. Before I left her, the skin became moist, and her pulse rose considerably. Her diarrhoea has ceased; numbness diminished; disposition to faintness increased; tongue less coated and more natural in its appearance. R Tinct. Cinchon. Compos. ʒss. every hour; continue Pul. Ipecac. &c. Take brandy, and soup freely.

*Evening.*—Has been much distressed, and inclined to faintness, with great difficulty of breathing, but was soon relieved. Her skin is moist; tongue nearly natural; pulse quicker and weaker than in the morning. R Tinct. Cinch. Com. ʒi. every four hours; infusion of quassia, a table spoonful, every half hour; other things as before directed.

21st.—Rested well; feels better; countenance improved; tongue nearly natural in its appearance; pulse 65, much stronger than yesterday; takes soup with more relish; costive. Administer an enema. Continue the medicines.

22d.—Rested well; has very little pain; had this morning a turn of being very much distressed, during which she felt very numb; complains of a sensation which she compares to a ball in her stomach; tongue dry in the middle, but has no coat on it; pulse of natural frequency, but rather feeble. Continue Pul. Ipecac. &c. Add tincture of valerian to the tincture of cinchona, and take a drachm every two hours. Continue brandy and soup freely.

23d.—Has not had so good a night, but to-day is much better. Her countenance is improved; pulse stronger; numbness and faintness gone; tongue natural, except a very slight white coat; does not relish food. Give the diaphoretic powder only once in six hours; other things as before.

24th.—Feels not quite so well; slept better last night; was permitted to sleep too long at a time. R Pul. Ipecac. &c. every four hours; other things as before.

25th.—Recovering; pulse and tongue natural; bowels in good order. Continue the medicines. She recovered in a short time after this.



## CASE XV.

*March 16th.*—Mrs. J. a married woman, about thirty years old, of vigorous health, was seized this morning, while in bed, with extreme pain in the head and dizziness; nausea, and soon after, vomiting; chilliness, succeeded by heat. She is thirsty; her tongue is dry, and protruded with difficulty; skin dry; limbs at times numb. She complains of general distress; and of a feeling of depression at the stomach, which at times is particularly severe. Her bowels are regular. R Pul. Ipecac. &c. every four hours; in the intervals a wine-glass-full of the fermented decoction of cinchona; at bed-time Tinct. Opii Camph. ʒi. Apply spiritous fomentations to the region of the stomach, and give Spir. Menth. pip. gt. viii. Tinct. Opii Cam. gt. xv. every hour, or from that to every three hours, according to the urgency of the vomiting. Take warm aromatic drinks; apply external sudorifics, until perspiration is excited; give soup for nourishment; and a little brandy according to the degree of depression, felt at the stomach.

*17th.*—She has had a tolerably good night. Her skin is moist; pain in the head relieved; vomiting continues; stomach rejects the decoction of cinchona; the numbness of the limbs is increased;

bowels in good order: has very little pain in any part; has a copious and free expectoration of thick mucus streaked with blood, without any cough; has no pain in the chest; respiration easy. Give a spoonful of infusion of quassia every half hour. Omit the decoction of cinchona. Continue other medicines.

18th.—Better; did not sleep so well last night as she did the night before, but was not prevented by pain; the vomiting stopped yesterday, and did not trouble her through the night, but has returned this morning. Her tongue is moist, still protruded with some difficulty; pain in the head gone; dizziness continues, in a slight degree, particularly upon motion of the head; skin constantly moist; expectoration diminished; no cough; has very little pain; faintness gone; pulse ninety; takes soup well, and cider very freely; bowels costive. R Pul. Ipecac. &c. every six hours. Continue the infusion of quassia. If the stomach will receive it, recommence with the fermented decoction; continue the Spir. Menth. Pip. &c. as often as the vomiting shall require it. At bed time, repeat the Tinct. Opii Camph. ʒi. If nothing passes the bowels before night, give the Pil. Aloes and Rhei, and repeat it in the morning if necessary.

19th.—She has rested better last night, than any night before since she has been sick. Her

skin is constantly moist; her tongue is moist; thirst less. She takes the decoction, and brandy, and soup well; is free from pain; numbness gone; expectoration continues moderately; pulse 84, full; the pills have operated upon the bowels.

20th.—Has slept very well in the night, and feels better this morning; continues free from pain and numbness; tongue moist, and the coat separating from it; skin constantly moist; sweat considerably in the night. Omit the diaphoretic powder in the night; in other respects continue the medicines, and give tonics more liberally.

21st.—Continues to recover; has been able to sit up two hours this morning; pulse and skin nearly natural; coat separating from the tongue; bowels costive. Give the Pul. Ipecac. &c. night and morning; other things as before. At night give Pil. Aloes and Rhei, and repeat in the morning if necessary. She was soon well.

#### CASE XVI.

March 16th.—Mrs. L. a young married woman, of good general health, was seized on the 12th inst. at Augusta, (whither she had gone to attend the funeral of her father) with the usual symptoms, pain in the head, dizziness, &c. She

was brought home the 13th, but has had no physician till to-day. She now has no constant severe pain. Her pulse is feeble and rather quick; tongue coated and dry; skin dry. Her limbs are at times numb. They are slightly swelled, and have a puffy feeling. She feels an almost constant disposition to vomiting, and is much inclined to faintness; has a troublesome dry cough, without any expectoration; has a strong desire for cider. Allow the cider freely; take the Pul. Ipecac. &c. every four hours; the fermented decoction of cinchona, a wine-glass-full, in each interval; Spir. Menth. Pip. gt. viii. Tinct. Opii Camph. gt. xv. at intervals of from one to three hours; at bed-time Tinct. Opii Camph. 3i. Take warm aromatic drinks, and a little brandy occasionally, and apply external sudorifics until perspiration is excited. Nourish with good soup. Apply spiritous fomentations to the region of the stomach.

17th.—Vomiting continues; tongue dry; thirst not very urgent; coughs much less, and expectorates freely; pulse natural in respect to frequency, but feeble; has sweat considerably during the night, but the skin is now dry; limbs feel puffy, and are at times numb. She dislikes brandy, but takes cider with great relish. The decoction of cinchona was not well fermented, and her stomach rejects it. The spirit of pepper-



mint, &c. gives a very grateful sensation to the stomach. Omit the decoction of cinchona. Take infusion of quassia, a spoonful every hour. Continue the other medicines.

18th.—Better ; skin moist ; vomiting ceased ; numbness gone ; tongue moist, but is not easily thrust out of the mouth ; pulse ninety, pretty strong ; takes soup well ; bowels costive. Take the fermented decoction of cinchona every four hours. Continue the infusion of quassia, and other medicines as before. R Pul. Rhei gr. xv. to be followed by an enema in two hours, unless the bowels are moved in the mean time.

19th.—She rested well through the night, until about four o'clock this morning ; when she suddenly, and without any apparent cause, became very faint, and soon after was subject to severe general distress. She complained of a sensation of great internal heat, and had an urgent desire for cold water. This desire was gratified, by giving her small quantities at a time. She soon vomited, and was relieved. She now complains of no pain, nor numbness. Her pulse is of natural frequency, and pretty good strength ; her tongue is protruded with difficulty. It is moist, and covered with a dark coat. The bowels are still costive, the rhubarb and enema having produced only a small discharge, which was hard.

She was much fatigued, by having the enema administered. Her attendants are awkward, and unaccustomed to sickness. & Pul. Rhei gr. xx. and if it does not operate in two hours, repeat the same quantity. Continue the Pul. Ipecac. &c. Take Tinct. Cinch. Com. ʒi. every two hours, brandy frequently, and soup freely.

20th.—Slept very well last night ; feels better ; less prone to faintness ; has very little numbness ; pulse eighty, pretty strong ; tongue of a dark colour, moved with more ease ; expectoration continues free. Continue the medicines, except the rhubarb.

21st.—Better ; had a distressed turn last evening, but vomited and was relieved ; passed a very good night. The pulse is nearly natural. Continue the medicines.

22d.—Better ; had a very good night ; countenance improved ; has no pain ; very little numbness ; pulse nearly natural ; tongue black ; dislikes soup. Continue the medicines. Substitute the juice of broiled meat for the soup.

23d.—She did not sleep so well as usual last night, though free from pain ; feels pretty well ; has no numbness nor faintness ; sat up half an hour this morning without fatigue ; pulse nearly

natural ; takes food with relish ; tongue moist, but black, except at the edges. Give the Pul. Ipecac. &c. only night and morning ; other medicines as before.

24th.—Her skin became dry this morning, and she had a turn of chilliness, though the skin felt hot to others. She was relieved by exciting perspiration. R Pul. Ipecac. &c. every six hours. Continue other medicines.

25th.—Better ; slept well last night ; has no pain ; can sit up three quarters of an hour, without fatigue ; appetite for food improves. Continue the medicines. Her convalescence was lingering ; but she regained tolerably good health in a few weeks.

#### CASE XVII.

March 17th.—Mrs. W. a married woman, aged about thirty, was taken in the night of the 14th instant, with chills, pain in the head, &c. ; but has had no medical advice till this evening. She now complains of faintness and extreme dizziness, especially if she raises her head from the pillow ; pain in the back and limbs ; occasional numbness in the limbs, which have a very puffy feeling ; nausea and distress at the stomach, with loss of

appetite, but no vomiting; tongue coated and dry; tongue and jaws feel stiff; skin dry, though she has sweat at times in the night; pulse feeble, but of natural quickness; bowels costive, and sometimes in pain. R Pul. Ipecac. &c. every four hours; in each interval, a wine-glass-full of the fermented decoction of cinchona. Give also, Pil. Aloes and Rhei, to be repeated in the morning if needed; and at bed-time, Tinct. Opii Camph. 3i. Take warm aromatic drinks. Apply external sudorifics. Nourish with soup.

18th.—Pain less; nausea continues at intervals; skin not constantly moist; tongue moist, and much coated; no thirst; pulse sixty, small and feeble. The pills have not operated upon the bowels. R Pul. Rhei gr. xx. to be followed by an enema in two hours, if the bowels are not moved in the mean time. Continue other medicines as before, and take brandy frequently.

19th.—Better; rested pretty well last night; numbness gone; countenance better; tongue moist; no thirst; bowels not yet moved; has only just now had the enema administered. Continue the medicines.

20th.—Slept perfectly well; feels no pain nor numbness; appetite for food, good; pulse rather feeble; tongue moist, coat separating at the



edges. R Tinct. Cinchon. Comp. frequently ; Pul. Ipecac. &c. night and morning ; brandy freely.

*Afternoon.*—After I left her this morning she had company, and sat up till she was very much fatigued. Her skin became dry, and about half past twelve, she became extremely faint, and much distressed. She was relieved in about an hour and a half, by exciting a perspiration. I then ordered the Pul. Ipecac. &c. to be given every four hours ; other things as before ; and repeated the injunctions of rest and quietness.

*21st.*—She is feeble, and much disposed to faintness ; complains of a feeling of depression at the stomach ; has very little pain ; pulse slow, and feeble ; bowels costive, except as they were moved by an enema yesterday. Continue the medicines.

*22d.*—Better ; had a good night ; appetite for food good ; has no pain ; very little numbness ; feels pretty well. Continue the medicines.

*23d.*—Much better ; feels well, except that she is feeble ; eats well ; sleeps well ; has no pain, nor faintness ; nor numbness ; tongue natural ; pulse stronger and somewhat quickened. Continue the tonics. From this time she recovered very rapidly.

## CASE XVIII.

*March 18th.*—G. G. a vigorous healthy boy, four years old ; has for a week past been affected, though not very severely, with symptoms of catarrh. On the 15th inst. he was seized with vomiting ; since which time, he has frequently had turns of sickness at the stomach, but has not vomited since yesterday. His complaints now are loss of appetite ; dizziness and faintness, particularly when raised out of a horizontal posture. He has not much pain ; very little thirst in the day time, though he had more in the night ; tongue coated, white, and moist ; lips parched ; skin dry, but not particularly hot, or cold ; pulse one hundred and thirty-four, small and feeble. He yesterday took a dose of sulphate of soda, which operated twice without giving any relief ; and was afterwards sweated by placing billets of wood, taken out of boiling water, around him in bed, with some apparent benefit. He rested pretty well last night. To-day he coughs and expectorates sparingly, a frothy mucus. The fauces are sore. Give the Pul. Ipecac. &c. every four hours ; in the intervals, the fermented decoction of cinchona ; at bed-time thirty drops of camphorated tincture of opium ; a little brandy occasionally. Give warm aromatic drinks, and apply external sudorifics, unless a diaphoresis is speedily obtain-

ed. without them. Let him take soup for nourishment.

19th.—Had rather a restless night, though not from much pain, but to day is better. His faintness, and nausea are gone ; dizziness diminished ; tongue moist ; skin constantly moist ; pulse one hundred ; takes some soup ; bowels costive since the 17th. & Pul. Rhei gr. x. Continue other medicines.

20th.—Better ; slept well ; appetite for food good ; skin continues moist ; tongue moist, but still coated. The rhubarb has not moved his bowels. & Pul. Rhei gr. xv. and unless it operate in two or three hours, administer an enema. Give the Pul. Ipecac. &c. every six hours. Continue the decoction of cinchona, and brandy. He recovered without any further attendance.

#### CASE XIX.

*March 21st.*—H. M. a young unmarried woman, has this afternoon attended the funeral of an acquaintance. About seven o'clock she sat down to supper with the family, though she felt not much appetite. While at supper, she was suddenly seized with extreme distress in the stomach and head, which was in a few minutes followed by delirium. When I arrived, which

was in a short time, she was cold, helpless, and took no notice of surrounding objects. Her respiration was laborious. She had frequent convulsive contractions of the muscles. Her pulse was very feeble, and rather slow.

While other things were preparing, I immediately gave her a drachm of camphorated tincture of opium in some warm tea. As soon as it could be done, bricks were heated, and had water poured over them, rolled in cloths, and put around her in bed. In a few minutes, some brandy was procured, when I gave her a table spoonful diluted with hot tea. I ordered the frequent repetition of these remedies, with the addition of the Pul. Ipecac. &c. every three hours, until a free perspiration should be excited; after which the powder was to be given only once in four hours, the brandy frequently, and other things as occasion should require. The camphorated tincture of opium was to be repeated in two hours if the distress continued. In a short time, she was a little relieved, and her pulse rose; when I was obliged to leave her.

22*d.*—She has had a restless night, except from about twelve to three o'clock, when her skin was moist, and she slept considerably. Her skin is now dry; tongue covered with a brown coat. She complains of some thirst; great pain in the



head ; pain under the sternum, to which she has long been subject. Apply fomentations to the chest ; continue the Pul. Ipecac. &c. every four hours. In each interval, give a wine-glass-full of the fermented decoction of cinchona. Continue warm aromatic drinks, and brandy occasionally, and give soup.

*Evening.*—She has vomited several times to-day, and is faint ; has more numbness than in the morning ; tongue darker and more coated ; pulse stronger : skin dry. She thinks the decoction of cinchona distresses her. R Lavend. Ol. Volat. gt. iv. Tinct. Opii gt. viii. every two hours. Omit the decoction, and take infusion of quassia a spoonful every half hour.

23d.—Has passed a good night and is better. She has very little pain. The faintness and numbness are much diminished ; her tongue is black ; skin rather dry, but less so than it was yesterday ; bowels costive. She takes medicine and soup well. Continue the Pul. Ipecac. &c. and in the intervals, give the fermented decoction of cinchona. Give brandy more freely ; soup as before ; camphorated tincture of opium, a drachm at bed-time. Give also at night Pil. Aloës and Rhei, and repeat in the morning, if the bowels are not moved.

24th.—Has rested well ; skin more moist ; pulse slow, and feeble ; tongue quite black ; feels some distress and faintness at the stomach ; the pills have not operated ; dislikes brandy, but takes the soup pretty well. Substitute wine for the brandy ; administer an enema. Continue the medicines with the addition of Menth. Pip. Ol. Vol. gt. ii. Tinct. Opii gt. vi. every hour, if the faintness continues, or whenever it is troublesome.

25th.—Better ; rested well in the night ; has not much pain ; tongue looks better ; pulse stronger ; bowels not yet moved ; R. Ol. Ricini ʒss. and repeat if necessary, until a discharge is procured. Continue other medicines. She recovered in a few days.

My minutes of the two following cases are less particular than those of the preceding. They occurred at a time when the sickness was too prevalent to allow me sufficient leisure to record more than the most prominent symptoms, or rather such as had less frequently occurred, of the cases, which came under my observation.

## CASE XX.

March 28th.—Mr. B. is a gentleman eighty years old, and is remarkable for his good general

health, and for his vigorous and active habits. He was seized yesterday with great and universal distress, and a sort of stupor, amounting almost to insensibility. He made use of the warm pediluvium, and was put into bed, and measures taken, by external applications, to excite perspiration. This morning, when I visited him, his pulse was quick and feeble, and he had most of the other symptoms, so frequently described as constituting a severe case of the fever. I prescribed the Pul. Ipecac. &c. and the fermented decoction of cinchona, to be given alternately, each at intervals of four hours, and a drachm of camphorated tincture of opium at bed-time. The diet and drink as in the other cases.

On the following day he was partially relieved ; but his symptoms continued nearly the same, and the same medicines were continued, with the addition of powdered rhubarb for costiveness.

The 30th, infusion of quassia was added to his other medicines in the morning ; and in the evening, the tincture of rhubarb and gentian was prescribed for costiveness ; and volatile oil of lavender, oil of peppermint and tincture of opium, for the vomiting, which had commenced in the afternoon.

As the vomiting subsided, he was inclined to coma, which was met by a vigorous exhibition

of the tonics and stimulants already mentioned. He was at the same time carefully supported by soup, and such other nourishment as he could take. Care was of course taken to keep him in a moderate perspiration, avoiding as much as possible a profuse sweat. As he disliked brandy, and had in his house some Jamaica spirit and gin, which were remarkable for their excellence and age, he was allowed to make use of these as substitutes, although he took them with reluctance, and in small quantities.

*April 3d.*—He began to be affected with a hiccough, which continued more than a week, most of the time with extreme violence. About the same time, his throat became sore; and in two or three days, the soreness increased to such a degree as to prevent him from taking by mouth any of the cordials, or any kind of spirit. He however continued to take some wine, and the fermented decoction, and soup, freely, until the 8th; when a nausea being added to his other complaints, he utterly refused to take any thing into his stomach, except the fermented decoction, and occasionally a little mild drink.

In the mean time I had given as much tincture of opium in mucilaginous drinks, as I thought his system would bear, in the hope of allaying the irritation in his stomach, which occasioned the



hiccough. Injections composed of soup, slightly seasoned, brandy, and from ten to fifteen drops of tincture of opium, had been administered several times a day, for the three days preceding. His pulse had been increasing in strength since his attack, and diminishing in frequency, until that day, when it was worse. On that evening (April 8th) the injections were directed to be repeated every two hours, with 30 drops of tincture of opium in each. He continued the decoction freely, and every three hours took in it, thirty drops of tincture of opium; the Pul. Ipecac. &c. was continued every four hours, when it could be done, mixed in any liquid in which he would best take it. Fomentations were applied to the region of the stomach.

By these means his hiccough was subdued; his throat in a day or two recovered, so that he was able to take food and medicine by mouth, and he became decidedly convalescent. The first article of food, that he would consent to take, was broiled ham. He ate it with relish, and without any injury. From this time he recovered so rapidly, that on the fifteenth, I discontinued my attendance. He has since regained his former activity and vigour, to a degree much beyond that of most persons, of his advanced age.

## CASE XXI.

*April 15th.*—Mrs. G. is a lady of about forty, a daughter of Mr. B. She has an infant, not quite two months old. For more than a week past, she has resided constantly at her father's, to aid in taking care of him and his family, others of whom are also sick; though on account of her infant, she has been less in the sick room, than others of her friends. She was attacked this morning, with pain in the bowels and diarrhœa, which were soon followed by the other symptoms of the fever. She was directed to take the Pul. Ipecac. &c. every four hours, and ten drops of Tinct. Opii after every superfluous stool, until the diarrhœa should be checked. She also took the fermented decoction of cinchona in the intervals of the powder, and other things as usual in other cases.

On the following day she was considerably relieved, but was troubled with frequent vomitings, for which she took the volatile oils of lavender and peppermint, with tincture of opium; at the same time that she continued the other medicines, with as much regularity as the vomiting would permit.

The 17th she was in every respect much better, and continued the medicines. Her skin was

moist, she was nearly free from pain, and seemed in a way to recover with rapidity. But in the night, the weather became suddenly colder than it had previously been; and her attendants were not aware of the change, so as to guard against its effects, until she had felt them severely. Her skin became dry; she was much distressed; her limbs numb; her tongue dry, and black. I found her nearly in this situation, on the morning of the 18th. A perspiration was speedily excited, which relieved her distress. Her vomiting returned in the course of the day, and as that subsided, she sunk into a coma. Her face was turgid and of a deep crimson colour; the whole body covered with a profuse sweat; the skin puffy and non-elastic to the feeling of others, and inclining to numbness and insensibility to herself. She would answer when spoken to, but her answers were often incoherent and wild.

A large blister was applied to the back of the neck, cold water and ice to the head. She was diligently rubbed over the whole surface of the body with flannel, and the limbs with a solution of cantharides. At the same time, a vigorous course of stimulants was administered internally, both by mouth and by injections. An effervescing mixture, made with carbonate of potass folled by an acid, was given frequently, as well as the stimulants so frequently mentioned in the

preceding pages. By these means the coma was completely arrested in the course of the day, the 19th; and by the 20th she was again decidedly convalescent.

From this time she recovered rapidly; and I left off my attendance on the 28th. In the course of her convalescence, she was affected with a slight eruption upon the skin, which continued a day or two, and then spontaneously disappeared. This eruption made its appearance at this period of the Epidemic in almost every case, while the patient was recovering, but did not seem to produce any consequences of importance.

#### CASE XXII.

*May 16th.*—W. J. is about thirty-five years old, of a very robust habit. His business, which is the manufacture of boards, has for many years exposed him to great fatigue, to labour in the water, and to the vicissitudes of the weather, by which his constitution has become exceedingly hardy. For several days past his exposure has been much greater than usual, in consequence of a flood, which threatened the destruction of his property. He has laboured almost incessantly night and day, frequently in the water, and almost constantly with his clothes wet by the rain, which has been very abundant; at the same time that he has been subject to extreme anxiety



of mind, in apprehension of the ruin which seemed to await him. During this period, he has two or three times been considerably ill, with pain in the head and back, and other symptoms of fever, for which he has taken measures to excite perspiration ; and being relieved by it, has then gone out and exposed himself as before.

Yesterday his exertions and anxiety were increased to the utmost extent. He was seen with his coat off, standing in the water, up to his waist, with the sweat streaming from his face, while the rain was still falling, using every effort to save his property, which the flood was carrying away. Soon after this, he returned home much exhausted, and in great pain and general distress. But something else occurring to him to be done, he again went out in the rain, upon the river to secure his timber. While he was out, he was seized with vomiting ; which, however, did not deter him from proceeding to accomplish his object. Immediately after his return, he put his feet into warm water, and went to bed. He was in great pain ; chilly ; skin hot and dry ; thirsty, &c. He complained also of a peculiar pain in his throat, which was very severe. He slept very little, if any, through the night. I was not called until this morning.

Measures had been taken by the family, to procure a diaphoresis, by giving him warm drinks,

and applying external sudorifics ; and had been successful so as to give him considerable relief. When I saw him, he felt that he was very sick, but without any very specific complaints, except an occasional vomiting. The pain in his throat had left him, with the other pains, when the diaphoresis appeared. His pulse was quick, and feeble ; tongue dry, and coated.

His mind was still very far from being in a state of quietness or composure. In addition to his apprehension for the loss of his property by the flood, which still continued, he now recollected that his accounts were in a careless state ; so that if he should die (of which he felt a strong probability) his friends would be liable to suffer much inconvenience and injustice. His uneasiness upon this point was so great, that he had procured a friend, to make memoranda, as he revolved his affairs in his mind, of a great variety of articles, which should have been charged and credited in his accounts. I remonstrated strongly against this exertion of his mental faculties, and endeavoured to calm his agitation ; but without much success in either. I directed him to take the Pul. Ipecac. &c. and the fermented decoction of cinchona, alternately, each at intervals of four hours ; and the volatile oil of peppermint with tincture of opium, in small doses according to circumstances.

Early in the afternoon, I visited him again. The friend who was with him in the morning, being considerably interested in the settlement of his estate, had continued, notwithstanding my remonstrances, for more than two hours, to excite him to recollect all the circumstances of his business, that he might take minutes of them. As soon as he was gone, Mr. J. called his workmen, and gave them particular directions how to proceed in his business. In this he was occupied nearly another hour, and almost immediately after, sunk into a comatose state; in which situation I found him. When he was spoken to, he would open his eyes, give a vacant stare, and if powerfully excited, would answer correctly, and immediately sink back into stupor, and apparent insensibility. He swallowed readily whatever was put into his mouth. His pulse was quicker than natural, apparently full, upon a slight touch, but yielded very much, and almost disappeared, under the pressure of the finger. The tongue was covered with a thick dark-coloured coat. The skin had an appearance of fullness, over the whole body, but more remarkably in the face, which was very red; it was rather non-elastic to the feeling, and poured out a profuse perspiration. A consultation was had at this time, and a very vigorous use of the stimulant remedies which have been often mentioned, particularly of the more diffusible stimuli, was prescribed. A large blister

was applied to the back of the neck. The forehead and temples were directed to be frequently wet with cold water, or vinegar and water, and stimulating applications to be made to the feet; and the surface of the body, to be rubbed with a solution of cantharides.

*Evening.*—The coma continues, and the other symptoms much as in the afternoon, except that the patient is roused with more difficulty. Continue the medicines very diligently; apply blisters to the legs; and throw up stimulating injections.

*May 17th.*—The coma continued until about twelve o'clock last night, when he awoke and was perfectly rational, and his mind clear, for nearly two hours. Unfortunately his attendant, with a very benevolent but mistaken zeal, thought it more important to improve this opportunity in taking care of his soul's health, than in administering the remedies which had been prescribed; and instead of giving the medicines with care and attention, and of promoting his rest and quietness, as he ought to have done, and had been strictly enjoined to do; he spent the whole time in talking, and exciting him to talk, of his hopes and prospects beyond the grave. According to the report of the attendant, Mr. J. carried on an almost uninterrupted conversation for about two



hours, and then sunk back into a deep coma, from which he never awoke.

When I saw him this morning, his face was of a deep crimson, almost purple colour ; his respiration slow, deep, laboured and stertorous ; his tongue black ; pulse slow, and apparently full, but exceedingly compressible ; the whole surface of the body covered with a profuse perspiration. It was impossible to rouse him from his comatose state, so as to make him speak or take notice of any object. The liquids which were put into his mouth, he ejected with great force on to the bed, or into the faces of his friends ; as if sufficiently sensible to be conscious of their presence, but not enough so to swallow them. The remedies were continued as long as there was any opportunity of doing it ; but he died at about ten o'clock.

I wished very much to make an examination of the body, but in vain.

#### CASE XXIII.

*May 19th.*—Mrs. S. is a married woman of about thirty-five, of rather feeble general health. She felt a little ill, last evening, but not so much so as to induce her to make it known to her friends. She passed a good night, and attended

as usual to the occupations of the family this morning, until about eleven o'clock, when she suddenly became very ill. She complained of no specific pain, but of extreme distress, and a feeling of faintness or sinking, which were more particularly severe in the stomach and head. In a short time, her face, neck and breast were covered with purple spots; which, however, soon disappeared, and she seemed to be rapidly sinking into a state of complete insensibility. Her friends gave her a spoonful of camphorated spirit, and immediately after, some spirit of peppermint and brandy, by which she was a little revived.

I arrived in about an hour and a half, from the time of the violent attack. Her face was somewhat swelled, of a deep crimson colour, with a livid hue about the eyes; and there was a preternatural fullness extending over the whole surface of the body. She was entirely helpless, and complained of coldness, though not cold to the feelings of others. The skin was dry, as well as her tongue and mouth; pulse quick, and low. She was so much inclined to drowsiness, that it was with difficulty, that she could be kept awake. Her mind seemed perfectly calm, and she was ready to second with her whole voluntary powers, all the efforts we were disposed to make for her recovery.

I began by giving her Tinct. Opii gt. x. Spir. Menth. Pip. gt. x. Ol. Lavend. gt. viii. every half hour; and in each interval, ten grains of camphor and one of opium, added to two grains of the Pul. Ipecac. &c. already described. Brandy was given as hot as she could take it, so freely, that in six hours, she had taken at least a pint; and occasionally a little soup, which was highly seasoned. A blister was applied to the back of the neck, and highly stimulating poultices to the feet. Billets of wood steeped in boiling water were wrapped in cloths and placed around her, under the bed clothes; and the whole surface of the body rubbed with hot spirit, as fast as it could be done without exposure to the air.

In a short time her pulse rose a little, the skin became moist, the drowsiness diminished, and in less than two hours, vomiting commenced. As this symptom was increased by the opium and camphor, they were necessarily omitted. The other remedies were continued, in small quantities frequently repeated, as she could take them; and as soon as the drowsiness was nearly gone (which was in the course of a few hours) the fermented decoction of cinchona was added. Fomentations, made with bitter herbs folded in flannel and dipped in spirit, were applied hot to the region of the stomach.—The vomiting increased, and became extremely urgent. There was no

continued nausea, but simply an immediate rejection of almost every thing received into the stomach. It was necessary to suspend almost entirely, the exhibition of every thing, except such articles as would be likely to arrest this disposition to vomiting. The remedies given for this purpose, although they seemed at first to accomplish the object, lost their efficacy as soon as the stomach became a little accustomed to their action. The volatile oils of lavender, peppermint and turpentine were given, sometimes separately, and sometimes combined, in a teaspoonful of any hot liquid, always with good effect for a short time ; but neither of them were permanently useful. Hot brandy, given by teaspoonfuls, at first pure, then seasoned with pimento, and afterwards with pepper, was more constantly serviceable than any thing else that was tried. It was three o'clock in the morning, before the vomiting was in any considerable degree subdued. She was all this time extremely restless ; her pulse had grown again very feeble, and she seemed nearly exhausted. From three o'clock until sunrise, she rested considerably, and was then somewhat revived.

Throughout the day the 20th, Mrs. S. was tolerably comfortable. She could take her medicines and soup, in small quantities tolerably well. The fermented decoction she relished very



much. She vomited but two or three times in the course of the day. Through the night she continued nearly in the same state.

Before sunrise the 21st, she began to complain of oppression at the stomach, and refused to take any thing but the decoction of cinchona. I now ordered small injections composed of brandy and soup, with a sufficient quantity of tincture of opium to secure their retention, to be thrown up every three or four hours. As she was costive, I soon after directed an emollient enema to be administered; to be followed by another, composed of yeast and brandy, as soon as the first should operate. It was not until a considerable time had expired, and after the injection had been repeated, that the bowels were moved. In the mean time, two or three stimulant enemas were administered, but without tincture of opium in them. She was very much exhausted by the discharge from the bowels, when it took place, which was very copious; and lay some time in a state of almost complete exhaustion. While in this state she entirely refused to take any thing but cold water. This was allowed her, at first very sparingly, but afterwards, as it seemed to refresh her, she was permitted to drink it in large quantities. After being in this state several hours, she began to take a little wine, and in a short time, the fer-

mented decoction. From this moment her desire for water ceased.

*May 22d.*—She has had a second discharge from the bowels this morning. She has been quite comfortable since about two o'clock this morning, although extremely feeble and exhausted. She takes wine, the fermented decoction, and brandy in panada, occasionally, but in very small quantities. Injections of soup, with a wine-glass-full of brandy, and tincture of opium, were administered every two or three hours. From thirty to sixty drops of tincture of opium were necessary to secure the retention of the injections. Towards evening, as she became able to take more by mouth, the injections were administered less frequently.

*23d.*—She has had a pretty comfortable night; but complains this morning of oppression at the stomach, and nausea. The injections of soup and brandy were given without tincture of opium, in the hope that the bowels would be excited to action. But as this effect did not take place, an emollient enema was ordered; and as it did not soon operate, was repeated in a few hours, being made cathartic by the addition of muriate of soda. One composed of soup and brandy had been given in the interval. Before the bowels were moved, she became much oppressed at the

stomach, and vomited a little, and felt a strong, but ineffectual desire to vomit more. † therefore gave her ten grains of sulphate of zinc, which caused her to throw up immediately, a considerable quantity of black flaky matter, suspended in a large quantity of thin watery fluid. The vomiting was not repeated, nor was it followed by any nausea. About the same time she had a copious discharge from the bowels, and immediately after, sunk into a state of exhaustion similar to that, of the evening of the 21st, but less complete. While in this state she would take nothing but cold water. In a few hours, however, she again commenced with wine, and the other articles which she had previously taken. The compound tincture of cinchona was tried now, as it had been before, but she could not take it. The injections of soup, &c. were continued every three hours. Towards evening she became quite comfortable, and continued so through the greater part of the night.

24th.—Towards morning, she began to complain of oppression at the stomach, and refused almost entirely to take either medicine or nourishment. Finding that I could not remove the oppression by cordials, after a few hours, I gave her another emetic of sulphate of zinc, which operated favourably, and brought up a considerable quantity of a greenish brown viscid slime. About the same

time, she had a spontaneous discharge from the bowels. She was considerably exhausted, but revived much sooner than before. Injections of yeast and soup, with a drachm and a half of powdered cinchona, were now ordered to be administered every four hours. The wine, and medicines were to be continued by mouth, as she could take them.

25th.—She has had a good night, and is very comfortable. The bowels were moved this morning by an emollient enema. She was somewhat exhausted by its operation, but by no means to the degree, in which she had been affected, the preceding days.

From this time she recovered very rapidly. She took wine, brandy, cinchona either in decoction or tincture, and soup, varying the quantity according to circumstances. The stimulant and nourishing injections were continued two or three days longer, until she could take a sufficient quantity of medicine and food by mouth. In about a fortnight from this time she was able to ride out.



## CHAPTER V.

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### REMARKS UPON THE CASES AND TREATMENT.

It will readily be observed, that the treatment here described, was not such a course of indiscriminate exhibition of stimulants, as those who disapproved of blood-letting, and other copious evacuations in this Epidemic, are supposed to have pursued. Stimulants it is true, were frequently administered, and in some cases very freely ; but they were not prescribed, without a rigid attention to the symptoms which indicated, or which at least appeared, to indicate them. The principal reliance for the removal of the fever, was upon a vigorous course of alteratives, aided by the application of external warmth and moisture ; and stimulants were chiefly given, to prevent, and remove the prostration and debility which the fever generally produced.

It is not my intention to enter into an argument in favour of the practice which I adopted. It has been faithfully detailed in the preceding

pages, and the result fully exposed; so that the reader may judge for himself, of its propriety. Whatever errors or defects there may have been in the particular details, yet I am persuaded that when all the circumstances are taken into view, the success will be considered sufficient to justify the general system pursued.

When the violence of the disease is fully considered, the suddenness of its attack, and the deceptiveness of its symptoms; the difficulty, and frequent impossibility of procuring suitable attendants; the scattered situation of many of the patients, and the consequent delay in calling advice; and the scantiness with which many of them were supplied with the comforts of life; I am confident that the number of unfavourable terminations was not so great, as to be thought a reproach to the medical treatment under which they occurred. Let it not be forgotten, that the statement of fatal cases is not confined to the deaths which were, strictly speaking, occasioned by the fever, nor to any limited period of the Epidemic, in which the practice was more successful than at other times. It applies to the whole course of the Epidemic, and to every death occasioned in any degree by it, in my practice.

A much larger proportion of fatal terminations appear among the cases given, than occurred in

actual practice; because in these, the disease may be supposed to be more fully developed, and to exhibit more completely its real character. Yet, the result in these cases, can hardly be attributed to a deficiency of healing power in the remedies employed, considered as applicable to the disease itself, in distinction from the contingent circumstances, to which all diseases are liable. This remark will apply to nearly, or quite every fatal case of the Epidemic which occurred in my practice. There was some peculiar circumstance, in the constitution or habits of the patient, or of gross mismanagement on the part of the attendants, which made it impossible to pursue the treatment relied upon in other cases.

It is in my view, of great importance in the management of this disease, to bear constantly in mind the maxim of Sydenham, that Epidemics assimilate to themselves all other diseases, which occur in their progress. To the neglect of this maxim, I attribute many of the unfavourable terminations of the disease in various parts of the country. In some places where the Epidemic prevailed, those who were affected with the simple form of the fever, almost uniformly recovered, while those in whom it was complicated with an affection of the chest, as uniformly died. In the simple form of the disease, the symptoms directly point out the proper course for their re-

moval. In the complicated form, those symptoms are deceptive, and lead to an erroneous practice, unless corrected by the maxim just mentioned.

It is indeed true, that there was a very great variety of symptoms and appearances in different patients; and of course, a corresponding variety was requisite in the modes of practice, in order to adapt the remedies to the individual cases. But it is equally true, that there were certain general features, and habits, which were common to all, and which, if they do not prove the disease to be the same, at least, shew that it always belonged to the same family.

This uniformity of disease does not extend so far, as to justify a physician in prescribing without a rigid and careful attention to the particular symptoms of each individual case; much less in opposition to the indications of those symptoms. On the contrary, it is a motive and an important one, for extending the investigation farther, and shews the necessity of considering the symptoms, not only in relation to each other, in the case before him, but also in relation to other diseases by which it may be surrounded. It certainly is matter of observation, and not of theory merely, that acute diseases vary very much at different times, in the extent to which they require evacuations, and the facility with



which they bear them. This remark is true not only as applicable to particular cases of the same disease, but also in reference to nearly or quite all the diseases in the different periods in which they occur, whether they are epidemic or merely occasional.

This perhaps amounts to no more than that the predisposing cause of disease, being general in its nature, applies to all the disorders of any particular period, and has an influence upon them, although of various kinds; at the same time, this cause, being different, in different periods, varies in the nature and tendency of its influence upon diseases, which, but for these variations, would be the same in all seasons. But however it may be explained, the principle is sufficiently well established by observation, and cannot be disregarded in practice with impunity.

To apply these remarks to the disease under consideration; considering it, as I do, a disease of debility, requiring, in general, a powerful course of stimulants, and yet sometimes complicated with symptoms of inflammation and excitement; I would not by any means, when these symptoms are present, so far neglect them as to continue the same vigorous stimulant course as in other cases. Neither, on the other hand, would I prescribe depleting remedies with the same freedom, as at other times, when no such

tendency to debility prevailed. I would take the middle course, and cautiously take such measures as should relieve the inflammation, with the least possible diminution of strength; and at the same time support the strength by such means, as would have the least tendency to increase the inflammation.

This course was perfectly successful; and in the complicated cases the patients recovered with as much facility as in others. The inflammation was in no instance so severe, as to require very powerful evacuations. Blistering and diaphoretics were sufficient to remove it: and as they exhaust the strength less rapidly than other evacuants, they were always preferred. The only instance in which I felt any inclination to bleed during the Epidemic, was that of Mrs. H. case VI. Her pulse was hard, and other symptoms seemed to indicate such an evacuation. But having learned how exceedingly unsuccessful the practice of bleeding had been in other towns in the vicinity, and having observed myself with what extreme rapidity the strength sunk in other cases under slighter evacuations, I was induced to defer it; though with a full resolution to resort to it, unless the measures which were adopted had given speedy relief. The result shews, that, whatever might have been the effect of a different proceeding, very little can have been lost by that which was adopted.

## CHAPTER VI.

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### REMARKS ON THE NATURE OF THE DISEASE.

It cannot be necessary to shew that the Epidemic, the history of which I have given, was a Fever, although there was hardly a symptom, of those which usually enter into the description of that disease, which was not occasionally wanting. In all cases it presented such a collection of appearances, as could not well be mistaken by a physician, however anomalous in their order, and arrangement. The whole inquiry then, is into the nature and character of the fever as such.

It has become customary to give the name of *typhus* to all fevers, in which prostration and exhaustion are prominent symptoms, however various their character in other respects. If this is to be regarded as a general distinction merely, expressive of the debility which accompanies fever, it obviously includes the disease which is described in the preceding pages. But if typhus is to be considered as a particular disease, the fever under consideration was not a typhus ; for it did not exhi-

bit the characteristic symptoms, which belong to that disease. It had not the regular approach, nor the uniformity of appearance, of typhus. Its progress was more rapid, its features more variable, its changes more abrupt, and its termination more sudden.

These are obviously characters of different diseases; and in practice, nothing can be easier than to distinguish them. A very slight examination is sufficient to shew that we have met a very different fever, from that which has long been known as typhus.

Yet this was a disease of debility; and of very great debility. I am aware of the distinction between mere prostration of strength, and debility. The fever under consideration exhibited them both; and in a very powerful degree. The strength was not only oppressed by the impulse of disease, but it was rapidly exhausted. To adopt the comparison of Fordyce, the spring was not only overpowered, so as to prevent its action, but its elasticity speedily vanished under the weight, which pressed upon it.

It is of very little importance in a practical point of view, whether, after this debility had actually commenced, it was preceded by a state of excitement or not; or in the language of Brown,



whether it is to be considered as direct or indirect. It is a state of real debility, to which the physician is called, and for which he is to prescribe, however it may have been induced. Whatever excitement there may have been, if indeed there had been any, has disappeared before he arrives. Surely he is not to imagine a secret influence, and prescribe for occult causes of disease, of whose existence the symptoms give no evidence. *De non existentibus et non apparentibus, eadem est ratio*, is a maxim which ought to be adopted in medicine, as well as in law ; provided proper care is taken to elicit all the evidence, which the appearances of disease actually exhibit to the attentive observer.

There seems to me to be no sufficient ground for the supposition, which appears of late to be extensively adopted, that the primary effect of an attack of disease, of whatever nature, is an excitement of the vital powers ; and that the debility which is produced, is in the first instance, exclusively an indirect result of this excitement. I see no good reason why we may not as well suppose, that the first effect of an attack of disease should be depression, as that it should be excitement. It is undoubtedly true, that in some instances, diseases of excitement have been mistaken for those of depression, in consequence of the deceptive appearances produced by the prostration of

strength. But that this is always the case, and that no diseases of direct depression occur, is an assumption altogether hypothetical.

Indeed, the whole reasoning upon this subject is in a great measure hypothetical. We are accustomed to refer to the heart and arteries, for the primary effects of an attack of fever; and every thing capable of producing a change of action in these organs, being considered as a stimulus, the result is of course, an excitement. Yet it is not at all certain, that the febrile action does in fact commence in the arterial system; nor that stimuli are the only agents, of whose action that system is susceptible. The very nature of the subject precludes the possibility of any positive knowledge in regard to it. We cannot at all conceive, in what manner a cause of disease which is perfectly invisible, and of whose nature we are entirely ignorant, should be able to produce any action whatever in a living, healthy system. Much less, can we investigate the nature of this action. It is as natural, and it appears to me to be as rational, to suppose it to be a depression, as an excitement of the vital powers. All that we can know of it, is from its effects; and they are sometimes of one kind and sometimes of the other. Why then should we resort to the supposition, that they are uniform in their nature, but that their character is sometimes concealed by deceptive symptoms?

This is in reality the position of those who insist that all febrile diseases, are originally diseases of excitement. A circumstance very much relied upon, in support of the position, is the congestion in the head, which frequently takes place in diseases of this class, and the appearances after death, produced by it. But if carefully examined, the inference deduced from this circumstance will hardly appear to be well founded. It is, I believe, universally agreed, that the congestion is principally, if not entirely, venous. It may therefore, as readily be produced, by a debility of the venous system, by which the return of the blood is retarded, as by an increased action of the heart and arteries, which should throw a larger quantity of that fluid into the head. There is, for ought I can see, as much probability in the hypothesis, that the morbid influence, whatever it may be, acts upon the brain, inducing debility of its vessels and its functions, as in that which supposes it to act primarily upon the heart. The impressions which the former organ is capable of receiving from external objects are, at least, as direct, and as powerful, and its sympathies with other parts of the body as extensive, as those of the latter. Why then, should it not be as susceptible to injuries, whether received directly from without, or from sympathetic actions within?

Unless the vital powers are very much overpowered, an obstruction in the circulation, na-



turally occasions a re-action of the heart and arteries, by which an effort is made for its removal. Hence the excitement which follows, may itself be the consequence of the debility which preceded it. The effort indeed is often a vain one ; and the congestion remains until it is relieved by art. In other instances, the first impression of disease is so violent, as to preclude all re-action, and no excitement follows the attack. Thus we not unfrequently see men of robust habits, and vigorous constitutions, rapidly sink under the operations of a fever, without any of the symptoms which mark a resistance to its power ; while in persons of feebler habits, affected by the same disease, we as often witness an excitement much more active.

That congestion is sometimes (for I do not pretend that it always is) produced by debility, appears from its being effectually removed by the application of stimulants. Upon the other hypothesis, these remedies ought always to increase, instead of diminishing the coma, and other symptoms of congestion, which so frequently occur in fever. How far this is from being the case, appears from the history given in this volume. I am aware that it has been said, that it was only in very slight cases of disease that these remedies are ever successful, and that if recoveries take place, it is in defiance of remedies. But



such remarks are not made in the spirit of accurate investigation, which ought to characterize researches, in a profession avowedly founded upon experience and observation; and are inconsistent with the candour and liberality, which ought to govern its members. If I am not greatly mistaken, the preceding pages furnish abundant evidence, that stimulants do, sometimes at least, promptly and effectually remove the symptoms of powerful and extensive congestions.

This explanation is confirmed by the fact, as observed by Armstrong, that excessive blood-letting will sometimes produce a similar congestion, and occasion the same appearances on dissection. "It is also remarkable," says that excellent author, "that on examining the bodies of some patients who had lost great quantities of blood in this way, I found much congestion in the veins of the brain and liver, with more or less serum effused in some parts."\* Indeed it was very observable, during the Epidemic at Gardiner, that evacuations of every kind, invariably increased the tendency to coma, and that tonics and stimulants cautiously administered, as constantly diminished it.

\* Armstrong on Typhus and other febrile diseases, p. 187.

Whether this view of the subject be correct or not, is a question of minor importance, in respect to the propriety of the practice detailed in this volume, as having been adopted in the Epidemic of 1814. As I have before observed, in the more violent cases, at least, this was a disease of real debility. If there had been excitement, it had vanished, before it could shew itself by symptoms. If we must with Armstrong, suppose a state of excitement, it must also be allowed, that the disease passed with extreme rapidity to his third stage of collapse. Surely, if a state of coldness, listlessness and torpor, without any subsequent heat; of extreme prostration and exhaustion, which are invariably increased by every species of evacuation, and as invariably diminished by tonics properly administered; a pulse soft, feeble, and quick, which almost vanishes under the finger, as if crushed by its weight, and which every evacuation renders still more feeble and tremulous; if these are not unequivocal marks of debility, I know not the points which are to guide us in practice.

The only practical question is, whether in the first moments of the disease, a powerful evacuant might not arrest the progress of the disease, and prevent the subsequent debility. This must be decided by observation, not by theory. When a physician finds symptoms of excitement in a

disease usually attended with great debility, his object must be, to determine by what means this excitement and its causes, can be removed with the greatest promptness, and the least subsequent inconvenience. In many, perhaps in most, cases, the evils consequent to active depletion will be less urgent, than those occasioned by suffering the excitement to be overcome by the progress of the disease. Yet in other cases, the tendency to debility and exhaustion may be so extreme, as to render it safer to trust, not indeed to the efforts of nature, but to mild evacuants and powerful alteratives for the removal of the excitement ; while the strength is supported by such means as shall not interfere with the general indication. It cannot be doubted, that each of these cases occur : and it is upon them that the two systems of practice are founded, which at first view seem so opposite, and about which the medical world have been so divided. It is the business of the physician to inquire which method promises the most success in the case before him ; and he will find his answer, in a careful comparison of the results in analogous cases about him, with the symptoms, constitution and habits of his patient.

In the fever at Gardiner, the great tendency to debility from slight evacuations, which came under my own observation, and the accounts which I

received of the fatal effects of more powerful depletion in many cases in the vicinity, induced me to prefer the alterative course. I will not pretend to say, that there might not have been cases, in which bleeding would have had a good effect. But I think, I may safely appeal to the result, as a proof, that my patients did not generally suffer for the want of it.

In all the cases, in which there was any appearance of excitement, it was mild, and yielded readily to the remedies prescribed for it. It is worthy of remark, that no case, in which I could discover marks of excitement or inflammation at the commencement, was followed by the great depression and coma, characteristic of the worst cases; except where some circumstances, accidental to the disease, occurred to produce them, as in case V. If I may not quote this fact as a confirmation of my position, that the debility was not always preceded by a state of excitement, I may at least consider it as evidence, that in the worst cases, the excitement had passed away, before I was called to prescribe.

Where the existence of excitement is fully established, it does not follow as a matter of course, that an active anti-phlogistic mode of treatment is the most suitable; because in many instances, milder means may be sufficient to accom-



plish the desired object, with less expence of strength ; and in others, the debility produced by the evacuations may be more urgent, than would be occasioned by the disease without them. There can therefore be no general rule, to guide the physician in his selection of the course he will pursue. He must be governed by the nature and symptoms of the case before him.

There may be, and doubtless frequently are cases, in which the circumstances are so nicely balanced in favour of each course, as to render it questionable, which is to be preferred ; and in which either if prudently managed will be successful. Hence the reason, why such apparently different modes of treatment, succeed in the same disease with different practitioners. Even in some cases where there is congestion without excitement, it is possible that bleeding may sometimes so suddenly diminish the fullness of the veins, as that the relief of the congestion, and the consequent reaction, shall compensate for the debility which it will produce. In such a case, this evacuation would not be at all inconsistent with a simultaneous exhibition of tonics and stimulants, such as the symptoms might indicate.

Such are my views of the fever under consideration, in its more simple form. It was strictly adynamic in its character, and required to be treat-

ed as such. But there was a class of symptoms, which appeared in a considerable number of cases, that are not at all explained by what has been said. I allude to the affections of the chest, which have been so often mentioned in the historical part of this treatise. I regard these affections as strictly inflammatory; although they are to be carefully distinguished from primary inflammations, as well as from the inflammatory diathesis, described by the older writers. Much confusion has arisen from neglecting this distinction. When the local affection in this fever is called an inflammation, some physicians seem to understand by the term, either a genuine pneumonia, or an inflammatory fever, such as is described by Sydenham; and they strenuously deny that it was either.

But it does not follow, that a local inflammation should necessarily have such an effect on the constitution, as to render the whole disease inflammatory. Typhus fever complicated with inflammation, is sufficiently common; and although the local affection, when it is severe, modifies the treatment proper for the general disease, yet it does not so far change the nature of that disease, as to require such a course of treatment as would have been proper, if it had been originally inflammatory. The effect in this Epidemic was precisely analogous. The cases, in which there was an affection of the chest, exhibited a less rapid and

urgent depression of strength, and required more evacuations and fewer stimulants than others ; although the inflammation was not so powerful as to need very active depletion, for its reduction.

Some of the most inflammatory cases are given in this volume. It will be seen that they in no instance amount to the Peripneumonia Notha of medical writers. The symptoms of inflammation were milder, and more readily and speedily subdued without bleeding, than in that disease ; particularly in its epidemic state, as described by Gallup and Thatcher. Indeed these symptoms were so mild, in the Epidemic in Gardiner and the vicinity, and yielded so easily without the use of powerful anti-phlogistic remedies, that some gentlemen were induced to consider them merely as the effect of congestion, without inflammation.

This explanation is not necessary to the theory of the disease, and in my view is not at all satisfactory. The symptoms and changes which in other cases are ascribed to inflammation, were produced by this affection ; and although milder in degree, their nature may nevertheless have been the same. We had the same pain in the chest, difficulty of breathing, and cough, followed by a copious yellowish expectoration, sometimes streaked with blood, as in genuine pneumonia ; and not unfrequently, in the commencement of the disease, the

pulse was considerably harder than in other cases of the fever. If these symptoms had not readily yielded to the milder measures adopted for them, I should not have hesitated to recommend bleeding. As it was, this evacuation did not appear to be necessary; and I cannot pretend to say, with positiveness, what would have been the result. But I shall not willingly believe that there would have been any danger in following with caution and circumspection, the indications which the symptoms pointed out, corrected as they would be, by comparing them with the other cases which prevailed at the time.

That this affection was in fact inflammation, is still more probable from the great disposition to local inflammations, of a less important character, upon the surface of the body. We have seen that carbuncles and other inflammatory sores, were a very frequent occurrence. The action necessary to produce these, must have been similar in kind, though perhaps not in degree, to that which should produce an inflammation of the lungs, sufficient to occasion the peripneumonic symptoms in these cases.

In a very few cases, the disease appears to have commenced with congestion in the head, and probably in other internal organs. Case XXIII, was of this kind, and in a slighter degree, case XX.



The listlessness and torpor in these cases were different in their appearance from the coma and stupor which were common, at a later period of the disease. Both classes of cases were relieved by stimulants, always combined in the former, with powerful diaphoretics. I did not practice blood-letting to relieve this congestion, and therefore can say nothing of its effects. Whatever may be thought of its efficacy or fitness to remove the symptoms, there can be no very powerful reason, to complain of the practice which was adopted, since in every instance of this kind, the result was favourable.

I have thus applied to the Epidemic under consideration, the distinctions which Dr. Armstrong has adopted in his "illustrations of Typhus." There are many points in which the two diseases resemble each other. Yet there are others, equally important, in which they evidently differ. Several of these have been mentioned, at the commencement of this chapter. There is one other circumstance of difference, deserving of notice, which was omitted there, because its correctness may not perhaps be universally allowed, without further illustration. Typhus is every where described as a contagious disease ; while the Epidemic which has so extensively ravaged our country, is generally believed not to be contagious. This is fully my own opinion, and so generally is it es-

tablished, that I should not think it necessary to say any thing in its support ; were it not that the contrary opinion is held by some gentlemen, for whom I have a high respect. The consequences of believing the fever to be contagious, have in some instances been very distressing. I have known sick families to suffer much, from the neglect of their friends ; occasioned by the dread of becoming infected. It is a matter of some practical importance therefore, to ascertain the correctness of opinions upon this subject.

That contagion, was not the sole cause of the extension of the Epidemic ; is obvious from only a very slight attention to the facts mentioned in the chapter upon the character of the disease. It often attacked persons, who previously had never been within the sphere of its influence, however contagious it might be supposed to be. At the same time, it frequently happened that one individual in a family, was affected, and went through a course of it, while all the rest of the family escaped ; and in two instances the fever proved fatal to the only person in the family, who was attacked. These facts are not consistent with the supposition of a very active degree of contagion.

It is indeed true, that when the fever appeared in a family, there seemed many times a disposition

to extend the number of its victims, beyond those first attacked. But besides that they all must probably have been equally exposed to the remote cause of the disease, this may be accounted for, by the great fatigue and anxiety, which a state of sickness occasions. Wherever that happened, those members of the family, who had been the least constantly in the sick room, were as frequently attacked, as others who had been uniformly engaged about the sick-bed. There were a few persons, who were almost continually employed, through the whole period of the Epidemic, in attending upon the sick, and occasionally, in performing the last offices for the dead, without being at any time attacked by the fever. These facts appear to prove, as strongly as a negative can well be proved, that this was not a contagious disease.

It is a question of considerable importance, in regard to this treatise, whether the Epidemic at Gardiner, was the same disease as that which has prevailed so extensively throughout New-England; in other words whether it was the spotted, or petechial, fever. If it was a mere local disease, confined in its operations to the sphere in which these observations were made, its history and description, are of very little comparative consequence to the medical world. But if it was in fact the same disease which has spread devastation and alarm through the country, every faithful at-

tempt to elucidate its character, is entitled to some attention.

So far as accounts have been published, and as my information extends, the general features of the Epidemic seem to have been the same, wherever it prevailed. Yet in some particulars, it varied considerably, in different places. Its progress was more rapid in some places than in others; and the treatment required was different, as well as the success resulting from the treatment. If the view which I have taken of the nature of the disease be correct, it furnishes a ready explanation of the various appearances, which were presented in its course. We have seen how varieties in the violence of the attack, as well as in the constitution and habits of patients, may produce corresponding varieties in the symptoms of the disease, and in the treatment which it will require; and yet its essential characters remain the same. In like manner, the peculiarities of local situation, may so influence an Epidemic as to alter many of its symptoms, without changing the nature of the disease in general.

It is very obvious, that the Epidemic under consideration, exhibited more strongly marked appearances of inflammation, and less urgent tendency to debility, in some stages of its progress, and in some places where it raged, than in others.



Yet there was not a corresponding difference in the other symptoms, by which it was attended. There were important features in its character, which a physician would every where detect, whether connected with the highest state of excitement, which the disease ever assumed, or with the lowest state of depression. So far therefore as these constituted the disease, it is to be considered as the same, in all its varieties; but modified in different places by circumstances accidental to it.

Of the *name*, which it is proper to affix to this disease, little need be said. It is evident that no name descriptive of its character and symptoms, can be applicable to all its varieties of appearance. It would doubtless be better therefore, not to attempt any such description, in the term by which the Epidemic is to be known. A variety of names have been invented; but none of them seem to be satisfactory, except to their authors. That it was a fever, all agree; and that it was adynamic in its character, is nearly as universally allowed. More than this must be learned, by referring not to the name, but to the description of the disease.

## CONCLUSION.

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WHATEVER may be thought of the opinions advanced in this volume, or of the propriety of the practice, which was adopted in the disease described in it; I flatter myself that the details of facts which it contains, will enable the reader to draw for himself some inferences of practical utility. One inference only, I will mention, because it seems to have been too much overlooked. It is, the importance of bearing it constantly in mind, in investigating the character of an Epidemic, that it is to be sought, like that of every other disease, only in the symptoms and appearances which the disease assumes. When the late Epidemic first appeared in the country, it seems in many places, to have been regarded, not only as a new disease, but as a disease subject to new laws; and requiring new principles to guide the physician in its treatment. The practice was therefore almost exclusively empirical. The knowledge of ages was thrown away, as inapplicable, and the suggestions of the moment, often the result of terror or caprice, adopted in its stead. Who does not now see, that but for the belief that this was an evil, to which the race of man had not before been subject, its

progress would have been less destructive? Had physicians in their first researches into the character of this Epidemic, been more generally guided by the lamp which the science ever holds out, we should sooner have been acquainted with its nature. Had they applied to this disease, the knowledge which they possessed in relation to all others, we should not have been so long terrified by its ravages, before we had learned to resist them. There were indeed many who did this; and it is to them that the profession is indebted for stripping the Epidemic of its terrors, and presenting it to us, shorn of its locks, and weak like other diseases.

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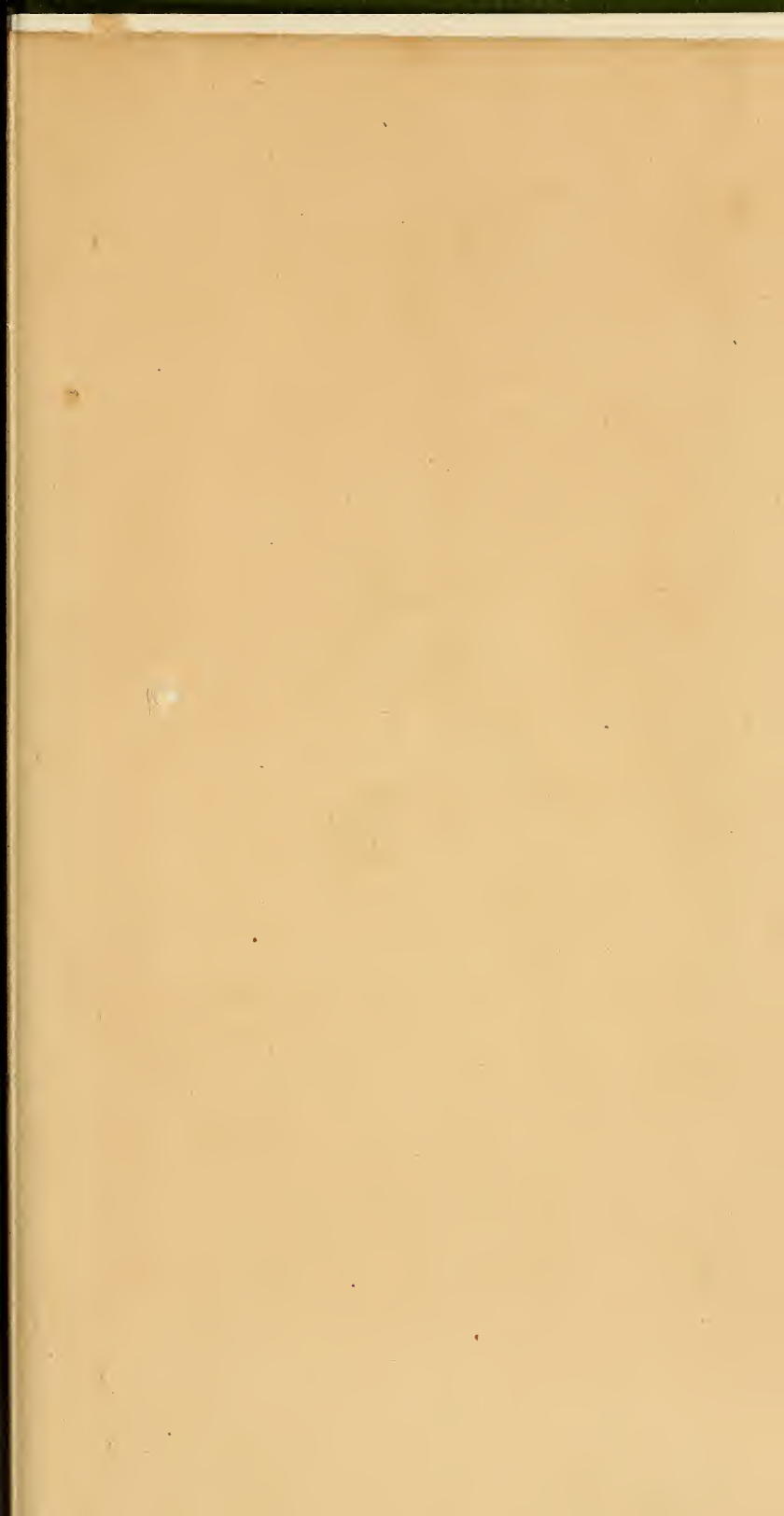
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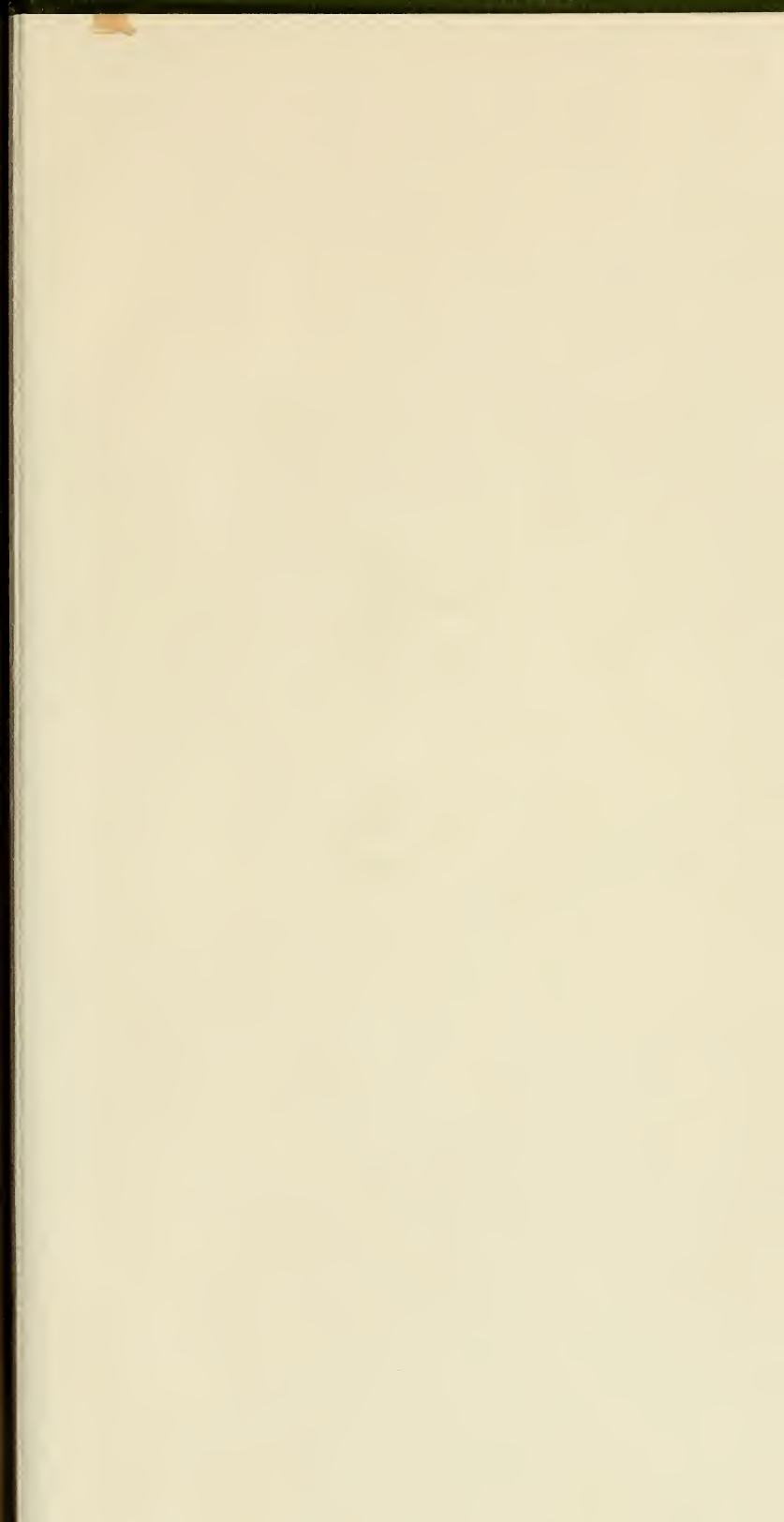
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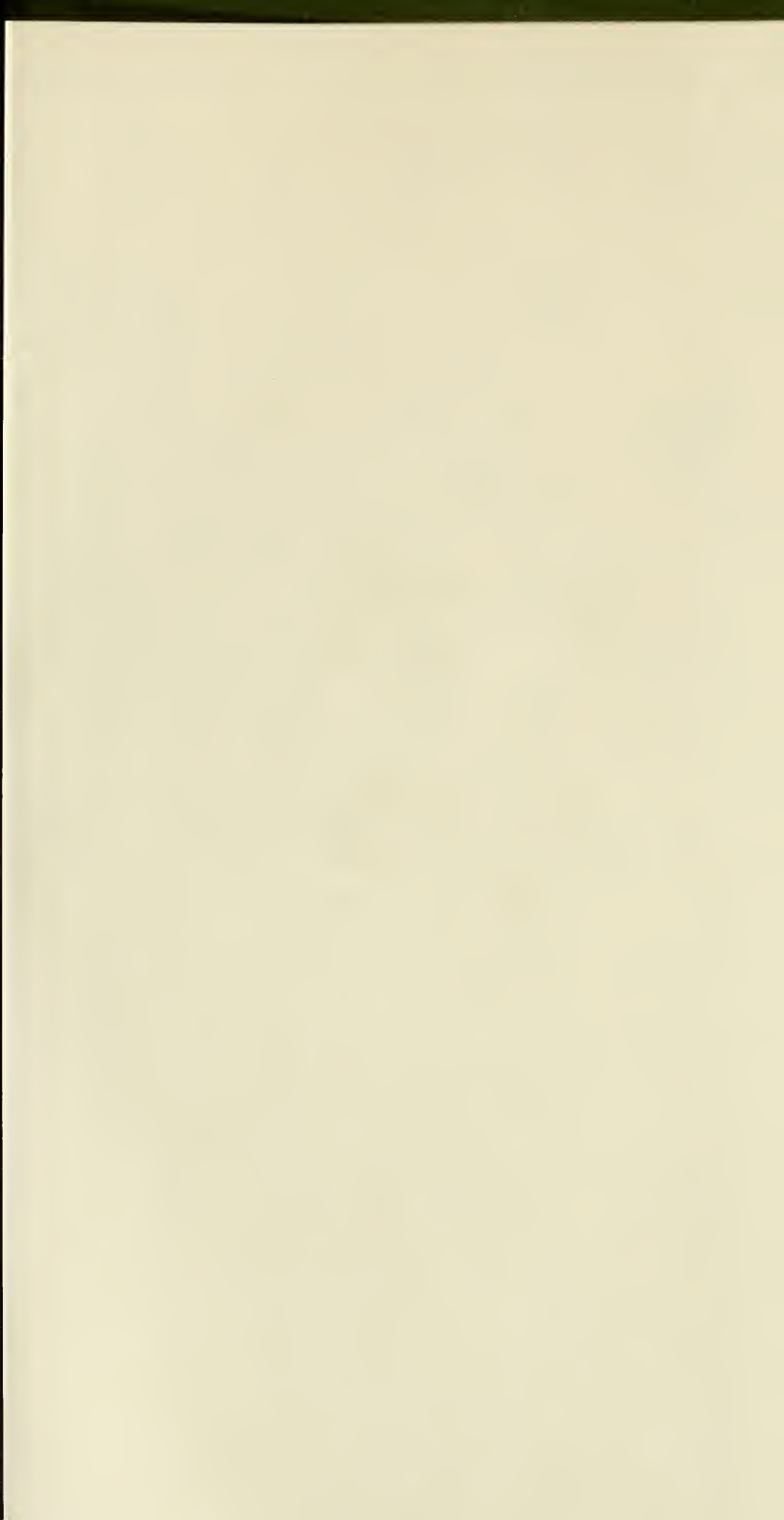


















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